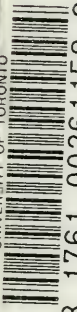


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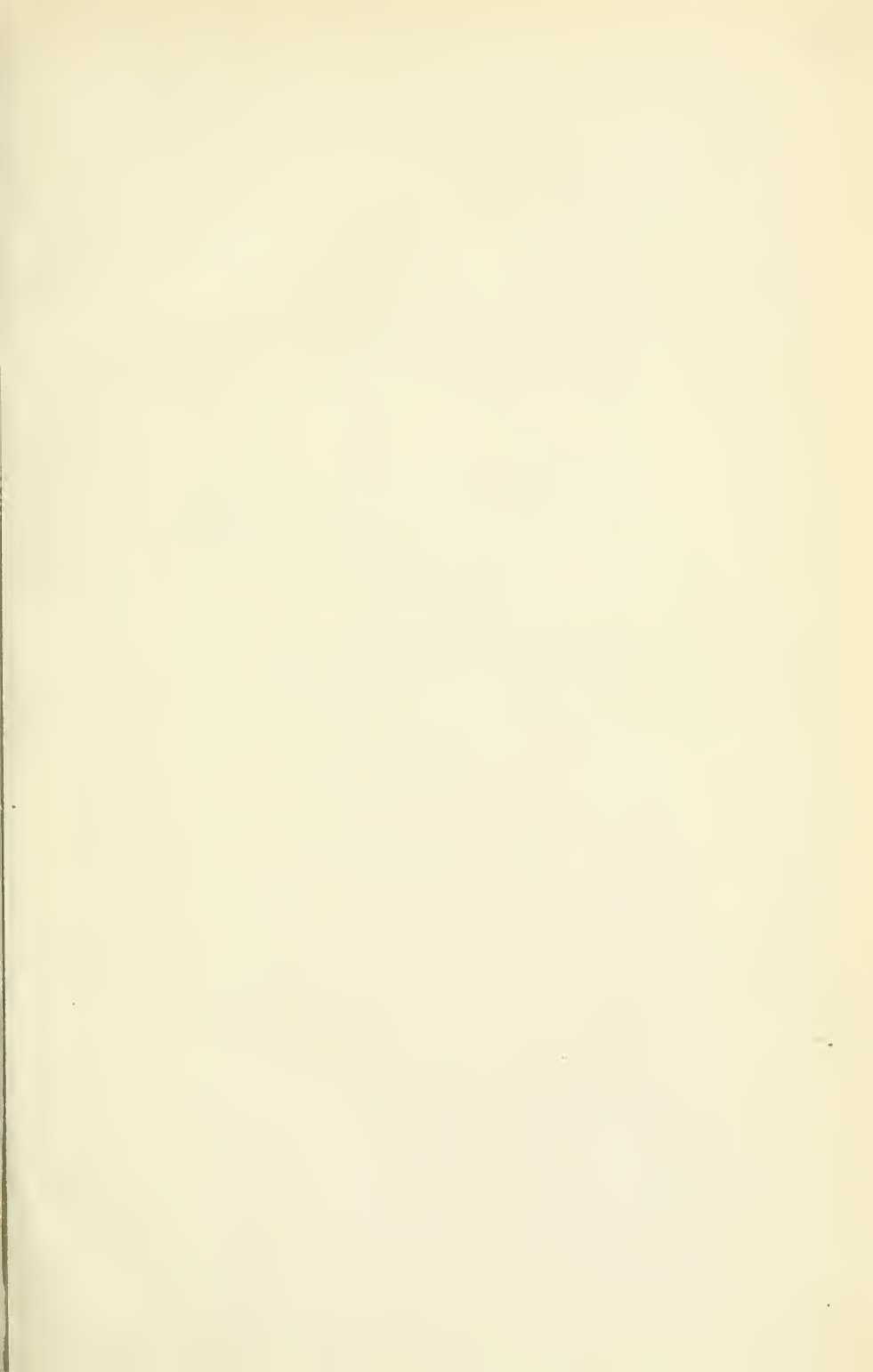


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# Four Supplications.

1529—1553 A.D.

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A  
Supplication for the Beggars.

WRITTEN ABOUT THE YEAR 1529 BY

Simon Fish.

NOW RE-EDITED BY

FREDERICK J. FURNIVALL.

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WITH

A Supplication to our moste Soueraigne Lorde  
Kynge Henry the Eyght

(1544 A.D.),

A Supplication of the Poore Commons

(1546 A.D.),

The Decaye of England

by the great multitude of shepe

(1550-3 A.D.),

EDITED BY

J. MEADOWS COWPER.

LONDON:

PUBLISHED FOR THE EARLY ENGLISH TEXT SOCIETY,  
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JOHN CHILDS AND SON, PRINTERS.

## FOREWORDS.

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WHEN trying to get together some evidence on the Condition of England in Henry VIII's and Edward VI's reigns for the Introduction to the Ballad of *Now a Dayes* († ab. 1520, A.D.) for my first volume for the Ballad Society, I was struck by the difficulty of finding out what tracts and books on the subject there were, and how few of them could be easily got at, much less bought at any reasonable price. But when I did get hold of some of them, I found them of such interest and value that I resolved to reprint such of them as I could, and one of the earliest<sup>1</sup> is now before the reader.

The second in date, the celebrated *Supplicacyon for the Beggers*, is however the first in importance, from its influence on Henry VIII and the Reformation, and its calling forth an answer from Sir Thomas More, his *Supplycacyon of Soulys* (in Purgatory), which gave rise to his controversy with Tyndal. I therefore give Foxe's full account of the whole matter from the third edition of his *Acts and Monuments*, A.D. 1576, pp. 986—991.

<sup>1</sup> Roy's *Rede me and be not wroth* is the earliest, and was in print by 1527 or -8, says Mr Arber. Mr Hazlitt dates Roy, 'Wormes 1526': but query. It is not in Foxe's list of Forbidden Books in 1526 (p. xii., below), though it is in that of 1531, printed in my *Political, Religious, and Love Poems*, 1866, p. 34: '7. The burying of the masse in English yn ryme.' Of Roy's other book in that list, '13. A Boke made by freer Roye ayenst the sevyn sacramentis,' I know of no copy. Bohn's edition of Lowndes says of the '*Rede me and be not wroth*', "in the Roxburghe Sale Catalogue this piece stands entitled 'The Buryinge of the Mass, a Satire'." Can Foxe's 'M. Roo' on the next page be William Roy?

## THE STORY OF M. SYMON FISHE.

M. Simon Tyshe,  
author of the  
booke, called the  
Supplication of  
Beggars.

Before the tyme of M. Bilney, and the fall of the Cardinall, I should haue placed the story of Symon Fish, with the booke called "the Supplication of Beggars," declaryng how and by what meanes it came to the kynges hand, and what effect therof followed after, in the reformation of many thynges, especially of the Clergy. But the missyng of a few yeares in this matter, breaketh no great square in our story, though it be now entred here [under the year 1531] which should haue come in sixe yeares before. The maner and circumstance of the matter is this:

After that the light of the Gospel, workyng mightely in Germanie, began to spread his beames here also in England, great styrr and alteration folowed in the harts of many: so that colored hypocrisie, and false doctrine, and painted holynes, began to be espyed more and more by the readyng of Gods word. The authoritie of the Bishop of Rome, and the glory of his Cardinals, was not so high, but such as had fresh wittes spareled with Gods grace, began to espy Christ from Antichrist, that is, true sinceritie from counterfait religion. In the number of whom, was the sayd M. Symon Fish, a Gentleman of Grayes Inne. It happened the first yeare that this Gentleman came to London to dwell, which was about the yeare of our Lord .1525. that there was a certaine play or interlude made by one M. Roo of the same Inne, Gentleman, in which play partly was matter agaynst the Cardinal Wolsey. And where none durst take vpon them to play that part, whiche touched the sayd Cardinall, this foresayd M. Fish tooke vpon him to do it; wherupon great displeasure ensued agaynst him, vpon the Cardinals part: In so much as he, beyng pursued by the sayd Cardinall, the same night that this Tragedie was playd, was compelled of force to voyde his owne house, & so fled ouer the Sea vnto Tyndall: vpon occasion wherof, the next yeare folowyng this booke was made (beyng about the yeare .1527.) and so not long after, in the yeare (as I suppose) 1528. was sent ouer to the Lady Anne Bulleyne, who then lay at a place not farre from the Court. Which booke, her brother seyng in her hand, tooke it and read it, & gaue it her agayne, willyng her earnestly to giue it to the kyng, which thyng she so dyd.

The booke of the  
supplication of  
beggars geuen to  
the kyng.

This was (as I gather) about the yeare of our Lord .1528. The kyng, after he had receaued the booke, demaunded of her, who made it. Wherunto she aunswered and sayd, a certaine subiect of his, one Fish, who was fled out of the Realme for feare of the Cardinall. After the kyng had kept the booke in his bosome iij. or iiij. dayes, as is credibly reported, such knowledge was giuen by the kynges seruantes to the wife of y<sup>e</sup> sayd Symon Fishe, y<sup>t</sup> she might boldly send for her husband, without all

perill or daunger. Whereupon, she thereby beyng incouraged, came first, and made sute to the kyng for the safe returne of her husband. Who, vnderstandyng whose wife she was, shewed a maruelous gentle and chearefull countenaunce towardes her, askyng where her husband was. She answered, if it like your grace, not farre of. Then sayth he, fetch him, and he shall come and go safe without perill, and no man shal do him harme; saying moreouer that hee had much wrong that hee was from her so long: who had bene absent now the space of two yeares and a halfe. In the whiche meane tyme, the Cardinall was deposed, as is aforeshewed, and M. More set in his place of the Chauncellourshyp.

Thus Fishes wife, beyng emboldened by the kynges wordes, went immediatly to her husband beyng lately come ouer, and lying priuely within a myle of the Court, and brought him to the kyng: which appeareth to be about the yeare of our Lord .1530. When the kyng saw him, and vnderstode he was the authour of the booke, he came and embraced him with louing countenaunce; who after long talke, for the space of iij. or iiij. houres, as they were ridyng together on huntynge, at length dimitted him and bad him take home his wife, for she had taken great paynes for him. Who answered the kyng agayne and sayd, he durst not so do, for feare of Syr Thomas More, then Chauncellour, & Stoksley, then Byshop, of London. This seemeth to be about the yeare of our Lord .1530.

The kyng, takyng his signet of his finger, willed hym to haue him recommended to the Lord Chauncellour, chargyng him not to bee so hardy to worke him any harme. M. Fishe, receiuyng the kynges signet, went and declared hys message to the Lord Chauncellour, who tooke it as sufficient for his owne discharge, but he asked him if he had any thyng for the discharge of his wife; for she a litle before had by chaunce displeased the Friars, for not sufferyng them to say their Gospels in Latine in her house, as they did in others, vnlesse they would say it in English. Whereupon the Lord Chauncellour, though he had discharged the man, yet leauyng not his grudge towardes the wife, the next mornyng sent his man for her to appeare before hym: who, had it not bene for her young daughter, which then lay sicke of the plague, had bene lyke to come to much trouble. Of the which plague her husband, the sayd M. Fish, deceasing within halfe a yeare, she afterward maryed to one M. Iames Baynham, Syr Alexander Baynhams sonne, a worshypfull knight of Glostershyre. The which foresaid M. Iames Baynham, not long after was burned, as incontinently after, in the processe of this story, shall appeare.

And thus much concernyng Symon Fishe, the author of the booke of beggars, who also translated a booke called the Summe of the Scripture, out of the Dutch.

M. Fishe brought, and gently entertained of the kyng.

M. Fishe rescued by the kyng.

Syr Tho. More persecuteth M. Fishes wyfe.

M. Fishe dyeth of the plague.

The summe of the scripture translated by M. Fishe.

Now commeth an other note of one Edmund Moddys, the kynges footeman, touchyng the same matter.

M. Moddys the  
kynges footeman.

This M. Moddys beyng with the kyng in talke of religion; and of the new bookes that were come from beyond the seas, sayde, if it might please hys grace to pardon him, & such as he would bryng to his grace, hee should see such a booke as was maruell to heare of. The kyng demaunded what they were.

The booke of  
Beggars brought  
to the kyng by  
George Elyot, &  
George Robynson.

He sayd, two of your Marchauntes, George Elyot & George Robinson. The kyng poynted a tyme to speake with them. When they came afore his presence in a priuie closet, he demaunded what they had to saye, or to shew him. One of them said y<sup>t</sup> there was a boke come to their hands, which they had there to shew his grace. When he saw it, hee demaunded if any of them could read it. Yea, sayd George Elyot, if it please your grace to heare it. I thought so, sayd the kyng, for if neede were, thou canst say it without booke.

The kynges  
aunsweare vpon  
the booke of  
beggars.

The whole booke beyng read out, the kyng made a long pause, and then sayd, if a man should pull downe an old stone wall and begyn at the lower part, the vpper part thereof might chaunce to fall vpon his head: and then he tooke the booke, and put it into his deske, and commaunded them vpon their allegiance, that they should not tell to any man, that he had sene the booke. &c. The Copie of the foresayd booke, intituled of the Beggars, here ensueth.

[The Boke of Beggars follows here in print.]

The supplication  
of the soules of  
Purgatory, made  
by Syr Tho.  
More, agaynst the  
booke of beggars.

Agaynst this booke of the Beggars aboue prefixed, beyng written in the tyme of the Cardinall, another contrary booke or supplication, was deuised and written shortly vpon the same by one sir Thomas More, knight, Chauncellour of the Duchy of Lancaster, vnder the name and title of the poore sely soules pewlyng out of Purgatory. In the which booke, after that the sayd M. More, writer therof, had first deuised the whole world into foure partes, that is, into heauen, hell, middle earth, and Purgatory: then he maketh the dead mens soules, by a Rhetoricall *Prosopopœa*, to speake out of Purgatory pynfolde, sometymes lamentably complayning, sometymes pleasauntly dalyng and scoffing, at the authour of the Beggars booke, sometymes scoldyng and rayling at hym, callyng hym foole, witlesse, frantike, an asse, a goose, a madde dogge, an hereticke, and all that naught is. And no mervel, if these sely soules of Purgatory seeme so furnish & testy. For heate (ye know) is testie, & soone inflameth choler; but yet those Purgatory soules must take good hede how they call a man a foole and heretike so often. For if the sentence of the Gospell doth

Math. 5. pronounce them guiltie of hell fire, which say, *fatue*, foole: it may be douted lest those poore sely melancholy soules of



Purgatory, calling this man foole so oft as they haue done, do bryng themselues therby out of Purgatory fire, to the fire of hel, by y<sup>e</sup> iust sentence of the gospel: so that neyther the v. woundes of S. Fraunces, nor all the merites of S. Dominicke, nor yet of all the Friers, can release them, poore wretches. But yet for so much as I do not, nor cannot thincke, that those departed soules, eyther would so farre ouershoote themselues if they were in Purgatory, or els that there is any such fourth place of Purgatory at all (vnlesse it be in M. Mores Vtopia) as Maister Mores Poeticall wayne doth imagine. I cease therefore to burden the soules departed, and lay all the wyte in maister More, the authour and contriuer of this Poeticall booke, for not kepyng *Decorum Personæ*, as a perfect Poet should haue done. They that geue preceptes of Arte, do note thys in all Poeticall fictions, as a speciall obseruation, to foresee and expresse what is conuenient for every person, accordyng to hys degree and condition, to speake and vtter. Wherefore if it be true that maister More sayeth in the sequele of hys booke, that grace and charitie increaseth in them that lye in the paynes of Purgatory, then is it not agreeable, that such soules, lying so long in Purgatory, should so soone forgette their charitie, and fall a rayling in their supplication so fumishly, both agaynst this man, with such opprobrious and vnfitting termes, and also against Iohn Badby, Richard Howndon, Iohn Goose, Lord Cobham and other Martirs of the Lord burned for hys worde: also agaynst Luther, William Tindall, Richard Hunne and other mo, falsly belyng the doctrine by them taught and defended: which is not lyke that such charitable soules of Purgatory would euer doe; neyther were it conuenient for them in that case, which in dede though their doctrine were false, should redound to the more encrease of their payne. Agayne, where the B. of Rochester defineth the Angels to be ministers to Purgatory soules, some wyll thinke peradventure maister More to haue missed some part of his *Decorum* in makyng the euill spirite of the authour and the deuill to be messenger betwene middle earth and Purgatory, in bringing tidinges to the prisoned soules, both of the booke, and of the name of the maker.

Vtopia, that is to say, *Nusquam*, no place.

A Poete sayth *Horace, Reddere personæ sit conuenientia cuique*

Now, as touchyng the maner how this deuill came into Purgatory, laughyng, grynnyng, and gnashyng his teeth, in sothe it maketh me to laugh, to see y<sup>e</sup> mery Antiques of M. More. Belike then this was some mery deuill, or els had eaten with his teeth some *Nasturcium* before: which comming into Purgatory to shew the name of this man, could not tell hys tale without laughing. But this was (sayth he) an enmious & an enuious laughing, ioyned with grynnyng and gnashyng of teeth. And immediatly vpon the same, was contriued this seoffing and raylyng supplication of the pewlyng soules of Purgatory, as hee hym selfe doth terme them. So then here was enmyng, enuyng, laugh-

M. Mores Antickes.

*Satan nasturciatur.*

ing, grinning, gnashyng of teeth, pewlyng, scoffing, rayling, and begging, and altogether to make a very blacke *Sanctus* in Purgatory.

A blacke Santus  
in Purgatory.

In deede we read in Scripture, that there shall bee wepyng and gnashyng of teeth in hell, where the soules & bodies of men shall be tormented. But who woulde euer haue thought before, that the euill aungell of this man that made the booke of Beggars, beyng a spirituall and no corporall substance, had teeth to gnashe, & a mouthe to grynne? But where then stode M. More, I meruell al this meane while, to see the deuill laugh with his mouth so wyde, y<sup>t</sup> the soules of Purgatory might see all hys teeth? Belyke this was in Vtopia, where M. Mores Purgatorye is founded. But because M. Moore is hence departed, I will leaue hym with his mery Antiques. And as touchyng hys booke of Purgatory, whiche he hath left behynde, because Iohn Frith hath learnedly and effectnously ouerthrowne the same, I will therefore referre the reader to hym, while I repayre agayne (the Lord willing) to the historye.

The aunswere of  
Ioh. Frith agaynst  
M. Mores  
purgatory.

After that the Clergye of England, and especially the Cardinall, vnderstode these bookes of the Beggars supplication aforesayd, to be strawne abroad in the streetes of London, and also before the kyng, the sayd Cardinall caused not onely his seruantes diligently to attend to gather them vp, that they should not come into the kynges handes, but also, when he vnderstode that the kyng had receaued one or two of them, he came vnto the kynges Maiesty saying: If it shall please your grace, here are diuers seditious persons which haue scattered abroad books conteyning manifest errours and herisies; desiryng his grace to beware of them. Wherupon the kyng, puttyng his hand in his bosome, tooke out one of the bookes, and deliuered it vnto the Cardinall. Then the Cardinall, together with the Byshops, consulted how they might provide a spedy remedy for this mischief,

Provision by the  
Byshops, agaynst  
Englishe bookes.

& therupon determined to geue out a Commision to forbid the readyng of all Englishe bookes, and namely this booke of Beggars, and the new Testament of Tyndals translation: which was done out of hand by Cuthbert Tonstall, Byshop of London, who sent out his prohibition vnto his Archdeacons, with all spede, for the forbidding of that booke and diuers other more; the tenor of whiche prohibition here foloweth.

¶ A prohibition sent out by Cuthbert Tonstall, Bishop of London, to the Archdeacons of his diocesse, for the callyng in of the new Testaments translated into English, with diuers other bokes: the Cataloge wherof hereafter ensueth.

A prohibition  
agaynst English  
bookes.

“Cuthbert by the permission of God, Byshop of London, vnto our welbeloued in Christ, the Archdeacon of London, or to hys Officiall, health, grace, and

benediction. By the duety of our pastorall office, we are bounde diligently with all our power, to foresee, prouide for, roote out, and put away, all those thynges which seeme to tend to the peril & daunger of our subiectes, and specially the destruction of their soules. Wherefore, we, hauyng vnderstandyng by the report of diuers credible persons, and also by the euident apparaunce of the matter, that many children of iniquitie, maintayners of Luthers sect, blynded through extreme wickednes, wandryng from the way of truth and the Catholicke fayth, craftely haue translated the new Testament into our English tongue, entermedlyng therewith many hereticall Articles & erroneous opinions, pernicious and offensive, seducyng the simple people, attemptyng by their wicked and peruerse interpretations, to prophane the maiestye of the Scripture, which hetherto hath remained vndefiled, & craftely to abuse the most holy worde of God, and the true sence of the same; of the which translation there are many bookes imprinted, some with gloses and some without, containyng in the English tongue that pestiferous and most pernicious poyson dispersed throughout all our diocesse of London in great number: which truly, without it be spedely foreseene, wythout doubt, wyll contaminate and infect the flock committed vnto us, with most deadly poyson and heresie, to the grievous peril and danger of the soules committed to our charge, and the offence of gods diuine maiesty. Wherefore we, Cuthbert the bishop aforesayd, greuously sorowying for the premisses, willyng to withstand the craft and subtletie of the auncient enemy and hys ministers, which seeke the destruction of my flock, and with a diligent care, to take hede vnto the flock committed to my charge, desiring to prouide spedie remedies for the premisses, do charge you ioyntly and seuerally, & by vertue of your obedience, straightly enioyne and commaunde you, that by our authority you warne or cause to be warned all & singular, aswel exempt as not exempt, dwelling within your Archdeaconries, that within .xxx. dayes space, wherof .x. dayes shalbe for the first, .x. for the second, & .x. for the third and peremptory terme, vnder paine of excommunication, and incurring the suspicion of herisie, they do bryng in, and really deliuer vnto our vicare generall, all & singular such bookes as conteyne the translation of the new Testament in the Englishe tongue; and that you doe certifie vs, or our sayd Commissarye, within ij. monethes after the day of the date of these presentes, duely, personally, or by your letters, together with these presentes, vnder your seales, what you haue done in the premisses, vnder payne of contempt, geuen vnder our seale the .xxiiij. of October, in the v. yere of our consecration .an. 1526."

¶ The lyke Commission in lyke maner and forme, was sent to the three other Archdeacons of Middlesexe, Essex, and Colechester, for the execution of the same matter, vnder the Byshops seale.

THE NAMES OF THE BOOKES THAT WERE FORBIDDEN AT THIS TYME,  
TOGETHER WITH THE NEW TESTAMENT.

Bookes con-  
demned and  
forbidden.

The supplication of beggers.	(2) <sup>1</sup>
The reuelation of Antichrist, of Luther.	(3)
The new Testament of Tindall.	(22)
The wicked Mammon.	(23)
The obedience of a Christen man.	(24)
An introduction to Paules Epistle to the Romanes.	(22)
A Dialogue betwixt the father and the sonne.	(1)
Oeconomicae Christianae.	(6)
Vnio dissidentium.	
Piae precationes.	(5)
Captiuitas Babilonica.	
Ioannes Hus in Oseam.	
Zwinglius in Catabaptistas.	
De pueris instituendis.	
Brentius de administranda Republica.	
Luther ad Galatas.	
De libertate Christiana.	
Luthers exposition vpon the Pater noster.	

The editor of the reprint of the *Supplicacyon* in 1845 refers also to Strype's *Memorials*, i. 165, and says that Wilkins (*Concilia*, 3. 706) gives us this edict or injunction [of Tonstall's, above] issued by the authority also of Warham, Archbishop of Canterbury. Again, in the year 1530, a public instrument agreed upon, says Wilkins (3. 728), in an Assembly of the Archbishop of Canterbury, the Bishop of Durham and others, by order of King Henry the Eighth, was put forth "containing diuers heretical and erroneous opinions selected from various books, which had been considered and condemned." One of those is from *the Supplication*, and is the passage [on Purgatory] beginning, "There be many men of great literature, &c." [p. 10, below, l. 21], and ending, "in all holy Scripture." And, once more, in the same year (*Wilkins*, iii. 737), or, with less probability, in 1529 (*Strype*, i. 165), a Royal Proclamation was published "for resisting and withstanding of most damnable heresies sown

<sup>1</sup> These numbers refer to those in the 'List of Books proscribed in 1531' printed in my edition of *Political, Religious, and Love Poems*, for the Society, 1866, p. 34-5, in which nine books in Tonstall's 1526 list are repeated. (The *Pre* of No. 5 there should be *Pie*.)

within this realm by the disciples of Luther, and other heretics, perverters of Christ's religion ;" at the end of which, with some other books, "the Supplication of Beggars" is strictly prohibited. Mr Arber tells me that Foxe's list of books on the opposite page is a spurious one, because it contains the names of several books not publisht till after 1526,—among them our *Supplication of Beggars*, which can be proved to have been publisht late in 1528 or early in 1529<sup>1</sup>;—that the *Unio dissidentium* is by H. Budius; and that *Piæ Precationes*, *Captivitas Babylonica*, and *De Libertate Christiana*, are Luther's.

Wood's account of Fish, in his *Athenæ Oxonienses*, is taken from Foxe, but he notes also what Sir T. More, in his 'Apology' (*Works*, &c., ed. Rastell, 1577, p. 881), says of Fish: that he "had good zeale, ye wote well, whan he made the Supplicacion of beggers. But God gaue hym suche grace afterwarde, *that* he was sory for that good zeale, *and* repented hymselfe, and came into the church agayne; and forsoke and forswore all the whole hill of those heresy'es, out of which the fountain of that same good zeale sprange."

"In More's *Supplication of Souls*, written to counteract the effect of Mr Simon Fish's *Supplication of Beggars*, More continually calls Fish 'this beggar's proctor,' and represents one of the souls in purgatory as saying of him, 'He is named and boasted among us by the evil angel of his, our and your ghostly enemy, the devil; which, as soon as he had set him at work with that pernicious book, ceased not to come hither, and boast it among us: but with his enmious and envious laughter, gnashing the teeth and grinning, he told us that his people [*i. e.* the reformers] had, by the advice and counsel of him, [*i. e.* the devil] and of some heretics almost as evil as he, made such a book for beggars, that it should make us beg long ere we got aught.'—More's '*Works*,' pp. 288-9. The *Supplication of Beggars* . . . was originally transmitted to England from the Continent, whither Fish had fled; so that More would suppose that Tyndale and Joye were privy to its composition."—*Parker Soc.'s Tyndale's Works*, iii. 268, note. In the Parker Society's Tyndale's Works, ii. 335, Tyndale, in his tract on *The Practise of Prelates*, again makes mention of Fish's *Supplication*, "which secretary (Thomas More) yet must first deserve it with writing against Martin [Luther], and

<sup>1</sup> See Mr Arber's Preface to his facsimile reproduction (1871) of Tyndale and Roy's first printed English New Testament, Cologne-Worms? 1525, 4to.



against *The Obedience* and *Mammon*, and become the proctor of purgatory, to write against *The Supplication of beggars*."

Bishop Tanner ascribes to Fish 'The boke of merchants<sup>1</sup> rightly necessary to all folkes, newly made by the lord Pontapole,' and 'The spiritual nosegay.'

That he translated from the Dutch the *Sum of the Scriptures* Foxe has already told us in the last lines of page vii above.

Fish was living at his house at Whitefriars in 1527-8. See Necton's Confession. *Strype*, I. ii. 63, ed. 1822. (Arber.)

No new facts about Fish are given in any modern biographical dictionaries that Mr W. M. Wood has searched for me. Foxe, as we have seen (p. vii, above, l. 9 from foot), says that Fish died of the plague about 1530; and the way that Sir Thomas More speaks of him seems to assume that he died before 1533.

The reader will notice how the *Supplication of the Poore Commons*, 1546, refers, on p. 61-2 below, to the *Supplicacyon of Beggers*, and its influence on Henry VIII.

F. J. F.

The second and third *Supplications*, printed from the original black-letter editions now in the British Museum,<sup>2</sup> are anonymous. The dates of their publication are 1544 for the second, and 1546 for the third. It is useless to guess who was the author (I believe the two proceed from one pen), but I have not much hesitation in suggesting Henry Brinklow ("Roderyck Mors"), who was busy at this time. Brinklow's two tracts<sup>3</sup> will as soon as practicable be included in this series, and then our readers will be able to judge for themselves. The same vehement language, and unqualified abuse of the clergy and all who were not of his way of thinking, will be observed throughout. The references to certain topics of the day cannot be

<sup>1</sup> Lond. Jugge, 1547, 12mo.—*Lowndes*.

<sup>2</sup> Mr E. Brock read the proofs with the originals.

<sup>3</sup> 'The Complaynt of Roderyck Mors . . . for the redresse of certen wicked lawes, euell customs, and cruel decreys, 1536'; and 'The Lamentacyon of a Christen Agaynst the Cytie of London, for some certayne great vyces vsed therin, 1545.'

reckoned on to weigh much with regard to the question of authorship in a case like this, else we might direct attention to several such in this Preface. Three must suffice :

*The Lamentacyon of a Christen.*

And I thinke within fewe years they will (wythout thy greate mercy) call vpon Thomas Wolsey late Cardinall, & vpon the vnholly (I shulde saye) holy Mayde of Kent. l. 4.

Accordyng to there office they barked vppon you to loke vppon the poore, so that then some relefe they had ; but now, alas, ye be colde, yea euen those whiche saye they be the favorers of the Gospell. l. 9, bk.

London beyng one of the flowers of the worlde, as touchinge worldlye riches, hath so manye, yea innumerable of poore people forced to go from dore to dore, and to syt openly in the stretes a beggyng, and many . . . lye in their howses . . . and dye for lacke of ayde of the riche. l. 9.

Ye abhorre the remedy ordayned of God [marriage], and mayntayne the remedy of Sathan. l. 22, bk.

*A Supplication of the Commons.*

Now must we beleue that they can not erre . . . though they were bandes and fornicators with the holy whore of Kent. p. 75.

Although the sturdy beggers gat all the deuotion of the good charitable people from them, yet had the pore impotent creatures sone relefe of theyr serappes, where as nowe they haue nothyng. Then had they hospitals, and almshouses to be lodged in, but nowe they lye and starue in the stretes. Then was their number great, but now much greater. p. 79.

Hordome is more esteemed then wedlocke . . . amongst a great numbre of lycensious persons. p. 82.

These are not worth much, but they may serve as a hint to those who care to go further in this direction.

The subjects embraced by the second and third *Supplications* are such as to justify their being placed in the same volume as Fish's more famous tract.<sup>1</sup> That gained its celebrity as much from its early appearance in the great struggle, and the notice taken of it by the king, as by its own intrinsic merits. More than this, Foxe embalmed it in his

<sup>1</sup> When the *Supplication of the Poore Commons* first appeared, it bore on its title page "¶ Wherunto is added the Supplication of Beggars." This is now omitted, as the *Supplication of Beggars* contained in the present volume is printed from a copy of the original black-letter edition in the British Museum.

pages, so that while the *Supplication to the King* and the *Supplication of the Commons* have not been reprinted for more than 300 years, and are unknown except to a few, the *Supplication of the Beggars* has been reproduced as often as Foxe's own immortal work.

The ignorance and immorality of the clergy are commented upon in severe terms. They, as usual, are charged with being the authors of every crime either by the suppression of the Bible, or by their false teaching. Their want of faith and neglect of preaching are said to be the cause of insurrections, commotions, popish blindness, idolatry, hypocrisy. It is said that many of the Abbots of the suppressed monasteries were admitted to have the cure of souls to the increase of all ignorance and to the damnation of those committed to their care. Of course. Having turned out these men, how could the virtuous patriots of the day do less than persecute them to the death? They had voluntarily or involuntarily resigned their livings into the hands of the Royal Defender of the Faith, and were willing to conform to the new order of things; but this was not enough. It was held that no good thing could come out of the Church as it existed a few years before, and so these men must submit to every indignity and be taxed with every crime. It was even considered dangerous to admit a man to the ministry who had studied the decrees and laws of the Church of Rome (p. 46).

But Church matters are not the only ones which gain attention. We hear of the extravagance which prevailed in fashions—now the French, now the Spanish, then the Italian, and then the Milan (p. 52), till many were brought to poverty by the foolish fancies and vain pride of men and women. The crimes of the rich make the writer apply Hosea's words to his own country—"There is no truth, no mercy, no knowledge of God in earth; cursing, lying, murder, theft, adultery, hath broken in"—and yet, notwithstanding all this, "doo owre shepherdes holde theyr peace."

The miserable poverty of the people, who expected great things from the expulsion of the monks, is clearly expressed. Under the old order of things there was some relief (p. 79), but under the new, instead of the monk there was the "sturdy extortioner." The people

could get no farm, not even a cottage. Rents were raised, abbey lands bought up, and the old leases declared to be void. Altogether the picture is anything but a cheering one, and makes us curious to know in what part of England "free fare and free lodging, with bread, beef, and beer," were to be had, and no questions asked.<sup>1</sup>

The last tract in this volume was copied from one then in the Lambeth Library, but as that was mislaid when we went to press, our text has been made to correspond<sup>2</sup> with the copy of another edition in the Cambridge University Library. The date<sup>3</sup> of this "Sheep-tract" must be 1550-3 A.D.; but the name of its author is unknown. It, too, is in the form of a petition or supplication, which seems to have been a favourite mode of exposing the grievances under which the people groaned. A noteworthy circumstance in connection with this tract is that the clergy are not even mentioned! It deals with rural troubles only. In cities men saw and perhaps envied the rich; in large centres of population also, just as in our own day, the clergy were the especial objects of the attacks of "reformers;" but this writer, whose style is far less effective than that of the *Supplications*, confines himself solely to the misfortunes which resulted from excessive pasture farming. His references to Northamptonshire, Buckinghamshire, and Oxfordshire, lead us to believe that his lot was probably cast in one of these counties. The complaint is made in very homely language and manner, but they give to it an air of truthfulness.

The calculations as to the losses sustained by the country are very interesting. A single plow, it seems, was calculated to keep six persons and leave thirty quarters of grain for sale annually.

<sup>1</sup> For further information on the subjects of these *Supplications* the reader is referred to the Introduction to *Ballads from MSS.*, vol. i. by Mr F. J. Furnivall, and to the Preface to *England under Henry VIII., a Dialogue, &c.*, by Mr J. M. Cowper.

<sup>2</sup> Mr Denis Hall of the Camb. Univ. Library collated the proofs with the original.

<sup>3</sup> Hugh Singleton's print of *The vocacyon of Johan Bale* is dated 1553, and he died between July 1592 and 1593. Herbert gives the date of Singleton's ed. of Fox's *Instruccion of Christen Fayth* as 1550. (Dibdin's *Ames*, iv. 290.) The copy of the Sheep-Tract mentioned in *Ames* as among the Harleian pamphlets is not now in the British Museum. It was the same edition as the missing Lambeth copy, having an *e* in *onely* and *housholde* in the title.—F.

Put into figures, the first calculation (p. 98) will stand thus :—

40 plows decayed in each county :

1 plow = 6 persons  $\therefore$  40 plows = 240 persons.

In addition each plow yielded 30 qrs. corn.  $\therefore$  40  
 plows = 1200 qrs. Allowing 4 qrs. to each person,  
 this shows a further loss of  $\frac{300}{\text{Total in each county } 540}$  „

But if there be 80 plows less in each of these shires, “as we do think” (p. 99), this number will be doubled, and in each county 1080 persons are deprived of their means of support.<sup>1</sup> In the writer’s own touching language we may say, “Now these persons had need to have living : whither shall they go ? into Northamptonshire ? And there is also the living of an equal number of persons lost. Whither shall then they go ? Forth from shire to shire, and to be scattered thus abroad, within the King’s Majesty’s Realm where it shall please Almighty God ; and for lack of masters, by compulsion driven, some of them to beg, and some to steal” (p. 98).

These Reformation Tracts are submitted to the careful attention of all who wish to study this period of our history, in the firm belief that the only way in which Englishmen can form a correct estimate of the wonderful change the country then went through, the causes which led to it, and the means by which it was brought about, is by placing in their hands all the contemporary documents which are within our reach.

J. M. COWPER.

<sup>1</sup> The calculation on p. 101 suggests a condition of things too frightful for belief :

1 Plow kept	6 persons
besides producing corn sufficient for	$7\frac{1}{2}$ „
50,000 plows $\times 13\frac{1}{2}$ =	675,000 „

thrown upon the country ; which, supposing the population to have been 5,000,000, would be one-eighth of the whole population, and reveals a state of things worse than that which exists at the present day, when every twentieth person receives parish relief, exclusive of the “beggars” who swarm on our highways, tramping from Union to Union because they can’t sleep in the same “house” two nights together.



A

# Supplication for the Beggars.

WRITTEN ABOUT THE YEAR 1529,

AND (AS IS BELIEVED) BY

Simon Fish.

NOW RE-EDITED BY

FREDERICK J. FURNIVALL.



## TO THE KING OVRE

*souereygne lorde.*

MOST lamentably compleyneth theyre wofull mysery vnto youre highnes, youre poore daily bedemen, the wretched hidous monstres (on whome seareely for horror any yie dare loke,) the foule, vnhappy sorte of lepres, and other sore people, nedy, impotent, blinde, lame, and sike, that live onely by almesse, howe that theyre nombre is daily so sore encreased, that all the almesse of all the weldisposed people of this youre realme is not halfe ynough for to susteine them, but that for verrey constreint they die for hunger. And this most pestilent mischief is comen vppon youre saide poore beedmen, by the reason and<sup>1</sup> there is, yn the tymes of youre noble predecessours passed, craftily crept ynto this your realme an other sort (not of impotent, but) of strong, puissaunt, and counterfeit holy, and ydell, beggers and vacabundes, whiche, syns the tyme of theyre first entre by all the craft and wilinesse of Satan, are nowe encreased vnder your sight, not onely into a great nombre, but also ynto a kingdome. These are (not the herdes, but the rauinous wolues going in herdes clothing, deuouring the flocke,) the Bisshoppes, Abbottes, Priours, Deacons, Archedeacons, Suffraganes, Prestes, Monkes, Chanons, Freres, Pardoners and Somners. And who is abill to nombre this idell,

The King's  
beadsmen, though  
lepers, maimed,  
and blind, find  
not half enough  
alms to sustain  
them;

and this by  
reason that  
others who are

[1 for that]

strong and able  
have crept in,  
numerous enough  
to form a  
kingdom.

These are no  
shepherds, but  
wolves, that is,  
Bishops, Abbots,  
&c.,

who work not,  
but have the  
third of the land  
in their hands ;

with the tithe of  
corn and wool,  
&c.,

and of every  
servant's wages,

as well as the  
good-woman's  
eggs, or else she  
has no Easter  
rights.

Then, they gain  
much by  
probates, private  
tithes and  
masses,

for which dead  
men's friends  
must pay ; and  
from confessions  
(which they  
divulge), from  
cursing and  
absolving.

Then again, how  
great is the  
number of the  
begging Friars.

In England are  
52,000 parish  
churches, 10  
households in  
each parish ;

from each  
household the

rauinous sort, whiche (setting all laboure a side) haue begged so importunatly that they haue gotten ynto theyre hondes more then the therd part of all youre Realme. The goodliest lordshippes, maners, londes, and territories, are theirs. Besides this, they haue the tenth part of all the corne, medowe, pasture, grasse, wolle, coltes, calues, lambes, pigges, gese, and chickens.ouer and bisides, the tenth part of euery seruauntes wages, the tenth part of the wolle, milke, hony, waxe, chese, and butter. Ye, and they loke so narrowly vppon theyre proufittes, that the poore wyues must be countable to theym of euery tenth eg, or elles she gettith not her ryghtes at ester, shalbe taken as an heretike. hereto haue they there foure offering daies. whate money pull they yn by probates of testaments, priuy tithes, and by mennes offeringes to theyre pilgrimages, and at theyre first masses ? Euery man and childe that is buried, must pay sumwhat for masses and diriges to be song for him, or elles they will accuse the dedes frendes and executours of heresie. whate money get they by mortuaries, by hearing of confessions (and yet they wil kepe therof no counceyle) by halowing of churches, altares, superaltares, chapelles, and belles, by cursing of men, and absolving them agein for money ? what a multitude of money gather the pardoners in a yere ? Howe moche money get the Somners by extorcion yn a yere, by assityng the people to the commissaries court, and afterward releasing thapparauce for money ? Finally, the infinite nombre of begging freres : whate get they yn a yere ? Here, if it please your grace to marke, ye shall se a thing farre out of ioynt. There are withyn youre realme of Englund .liij. thousand parisshe churches. And this stondeing, that there be but tenne houshouldes yn euery parisshe, yet are there fife hundreth thousand and twenty thousand houshouldes. And of euery of these houshouldes hath euery of the

five ordres of freres a peny a quarter for euery ordre, that is, for all the five ordres, five pens a quarter for every house. That is, for all the five ordres .xx. d, a yere of euery house. Summa, five hundreth thousand and twenty thousand quarters of angels. That is .cclx. thousand half angels. Summa .cxxx. thou and angels. Summa totalis .xliij. thousand poundes and .cccxxxiiij. li. vi.s. viij.d. sterling. wherof not foure hundreth yeres passed they had not one peny. Oh greuous and peynfull exactions thus yerely to be paid! from the whiche the people of your nobill predecessours, the kinges of the auncient Britons, euer stode fre. And this wil they haue, or els they wil procure him that will not giue it them to be taken as an heretike. whate tiraunt euer oppressed the people like this cruell and vengeable generacion? whate subiectes shall be abill to helpe theire prince, that be after this facion yerely polled? whate good christen people can be abill to socoure vs pore lepres, blinde, sore, and lame, that be thus yerely oppressed? Is it any merueille that youre people so compleine of pouertie? Is it any merueile that the taxes, fitenes, and subsidies, that your grace most tenderly of great compassion hath taken emong your people, to defend them from the thretened ruine of theire comon welth, haue bin so sloughtfully, ye, painfully leuied? Seing that almost the vtmost peny that mought haue bin leuied, hath ben gathered before yerely by this raiuinous, cruell, and insatiabill generacion. The danes, nether the saxons, yn the time of the auncient Britons, shulde neuer haue ben abill to haue brought theire armies from so farre hither yuto your lond, to haue conquered it, if they had had at that time suche a sort of idell glotons to finde at home. The nobill king Arthur had neuer ben abill to haue caried his armie to the fote of the mountaines, to resist the coming downe of lucius the Emperoure, if suche

five orders take  
20 pence a year,  
or in round  
numbers,  
£13,333 6s. 8d.

Your Highness's  
predecessors did  
not pay this, and

no subjects can  
help their king if  
they are so  
fleece; and none  
can give alms to  
us.

How will the  
taxes, which you  
have so tenderly  
taken, be levied?  
for these raveners  
have got all  
beforehand.

Neither Dane  
nor Saxon could  
have won Britain,  
if they had had  
such a brood at  
home.

Nor could Arthur  
have resisted  
Lucius, with such  
extortioners

among his people,  
nor the Greeks  
besieged Troy,

nor Rome won  
the world, nor the  
Turk so much of  
Christendom.

These men, then,  
have nigh half  
the substance of  
the realm,

and yet they are  
but one in a  
hundred of the  
lay-men, or with  
women and  
children added,  
one in four;

but yet they have  
half the property  
of the realm.

What do they with  
their exactions?  
Nothing, but  
claim all power;  
excite rebellions,  
as they did

yerely exactions had ben taken of his people. The grekes had neuer ben abill to haue so long continued at the siege of Troie, if they had had at home suche an idell sort of cormorauntes to finde. The auncient Romains had neuer ben abil to haue put all the hole worlde vnder theyre obeisaunce, if theyre people had byn thus yerely oppressed. The Turke now, yn youre tyme, shulde neuer be abill to get so moche grounde of cristendome, if he had yn his empire suche a sort of locustes to deuoure his substaunce. Ley then these sommes to the forseid therd part of the possessions of the realme, that ye may se whether it drawe nighe vnto the half of the hole substaunce of the realme or not: So shall ye finde that it draweth ferre aboue. Nowe let vs then compare the nombre of this vnkind idell sort, vnto the nombre of the laye people, and we shall se whether it be indifferently shifted or not that they shuld haue half. Compare them to the nombre of men, so are they not the .C. person. Compare them to men, wimen, and children; then are they not the .CCCC. parson yn nombre. One part therefore, yn foure hundreth partes deuided, were to moche for them except they did laboure. whate an vnequal burthen is it, that they haue half with the multitude, and are not the .CCCC. parson of their nombre! whate tongue is abill to tell that euer there was eny comon welth so sore oppressed sins the worlde first began?

¶ And whate do al these greedy sort of sturdy, idell, holy theues, with these yerely exactions that they take of the people? Truly nothing but exempt them silues from thobedience of your grace. Nothing but translate all rule, power, lordshippe, auctorite, obedience, and dignite, from your grace vnto them. Nothing but that all your subiectes shulde fall vnto disobedience and rebellion ageinst your grace, and be vnder them. As they did vnto your nobill predecessour



king Iohn: whiche, forbicause that he wolde haue punisshed certeyr traytours that had conspired with the frenche king to haue deposed him from his crowne and dignite, (emoug the whiche a clerke called Stephen, whome afterward against the kinges will the Pope made Bisshoppe of Caunterbury, was one) enterdited his Lond. For the whiche mater your most nobill realme wrongfully (alas, for shame !) hath stond tributary (not vnto any kind temporall prince, but vnto a cruell, deuellishe bloodsupper, dronken in the bloude of the sayntes and marters of christ) euer sins. Here were an holy sort of prelates, that thus cruelly coude punisshesuche a rightuous kinge, all his realme, and succession, for doing right !

against that noble King Iohn, when one of them interdicted the land ;

and from that time the land has been tributary to a devilish blood-supper.

A holy sort of prelates to treat a righteous king so !

¶ Here were a charitable sort of holy men, that coude thus enterdite an hole realme, and plucke away thobedience of the people from theyre naturall liege lorde and kinge, for none other cause but for his rightuousnesse ! Here were a blissed sort, not of meke herdes, but of bloodsuppers, that coude set the frenche king vppon suche a rightuous prince, to cause hym to lose his crowne and diguite, to make effusion of the bloude of his people, oneles this good and blissed king of greate compassion, more fearing and lamenting the sheding of the bloude of his people then the losse of his crowne and dignite, agaynst all right and conscience had submitted him silf vnto theym ! O case most horrible ! that euer so nobill a king, Realme, and succession, shulde thus be made to stoupe to suche a sort of bloodsuppers ! where was his swerde, power, crowne, and dignite become, wherby he mought haue done iustice yn this maner ? where was their obedience become, that shuld haue byn subiect vnder his highe power yn this mater ? Ye, where was the obedience of all his subiectes become, that for maintenaunce of the comon welth shulde haue holpen him manfully to haue re-

Holy men were they ! hating one who more feared to shed blood than lose his crown ;

but they had translated all power to themselves.

No man's wife  
or daughter is  
safe for them;  
so that no man  
can be sure of his  
own child; and  
still by abstaining  
from marriage,  
they may make  
the realm  
desolate.

But for them,  
100,000 women  
would have lived  
honestly.

They carry  
disease from  
one to another,  
and boast of their  
success.

They draw  
women from their  
husbands.

sisted these bloudsuppers to the sheding of theyre bloude? was not all to-gither by theyre polycy translated from this good king vnto them? Ye, and what do they more? Truly nothing but applie theym silues, by all the sleyghtes they may, to haue to do with euery mannes wife, euery mannes doughter, and euery mannes mayde, that cukkoldrie and baudrie shulde reigne ouer all emong your subiectes, that noman shulde knowe his owne childe, that theyre bastardes might enherite the possessions of euery man, to put the right begotten children clere beside their inheritaunce, yn subuersion of all estates and godly ordre. These be they that by their absteyning from mariage do let the generation of the people, wherby all the realme at length, if it shulde be continued, shall be made desert and inhabitable.<sup>1</sup>

¶ These be they that haue made an hundreth thousand ydell hores yn your realme, whiche wolde haue gotten theyre lyuing honestly, yn the swete of theyre faces, had not theyre superfluous rychesse illected theym to vncleue lust and ydelnesse. These be they that corrupt the hole generation of mankiud yn your realme; that catche the pokkes of one woman, and bere theym to an other; that be brent wyth one woman, and bere it to an other; that catche the lepry of one woman, and bere it to an other; ye, some one of theym shall bost emong his felawes, that he hath medled with an hundreth wymen. These be they that when they haue ones drawen mennes wiues to suche incontineney, spende away their husbondes goodes, make the wimen to runne away from their husbondes, ye, rynne away them silues both with wif and goodes, bring both

<sup>1</sup> Sir Thomas More points out the seeming contradiction between this sentence and the last: for if the monks were such good begetters of bastards, they would increase the population, rather than diminish it. But this is answered in the next page here.

man, wife, and children, to ydelnesse, theft, and beggeri.

Ye, who is abill to nombre the greate and brode botomles ocean see, full of cuilles, that this mischeuous and sinful generacion may laufullly bring vppon vs vnponissed? where is youre swerde, power, crowne, and dignite become, that shuld punisse (by punissement of deth, euen as other men are punissed) the felonies, rapes, murders, and treasons committed by this sinfull generacion? where is their obedience become, that shulde be vnder your hyghe power yn this mater? ys not all to-gither translated and exempt from your grace vnto them? yes, truly. whate an infinite nombre of people might haue ben encreased, to haue peopled the realme, if these sort of folke had ben married like other men? whate breche of matrimonie is there brought yn by them? suche truly as was neuer, sins the worlde began, among the hole multitude of the hethen.

Why should you not punish them as you do other men?

Evils numberless they bring on us.

Why should they not be married like other men?

¶ Who is she that wil set her hondes to worke, to get .iij. d. a day, and may haue at lest .xx. d. a day to slepe an houre with a frere, a monke, or a prest? what is he that wolde laboure for a grote a day, and may haue at lest .xij. d. a day to be baude to a prest, a monke, or a frere? whate a sort are there of theime that mari prestes souereigne ladies, but to cloke the prestes yncontinency, and that they may haue a liuing of the prest theime silues for their laboure? Howe many thousandes doth suche lubricite bring to beggery, theft, and idelnesse, whiche shuld haue kept their good name, and haue set them silues to worke, had not ben this excesse treasure of the spiritualtie? whate honest man dare take any man or woman yn his seruice that hath ben at suche a scole with a spiritual man? Oh the greuous shipwrak of the comon welth, whiche yn auncient time, bfore the coming yn of these rauinous

What woman will work for 3*d.* a day, when she may get 20*d.* by sleeping with a monk?

How many men marry priests' ladies, just to get a living by it?

Before these wolves came,

there were but few thieves, few poor, and those had given to them enough without asking.

Why wonder, then, there are so many beggars, thieves, &c.?

You cannot make laws against them. They are stronger in Parliament than you.

Who dare lay charges against them?

If any one does, he is accused of heresy:

wolves, was so prosperous, that then there were but fewe theues! ye, theft was at that tyme so rare, that Cesar was not compellid to make penalite of deth vppon felony, as your grace may well pereeyne yn his institutes. There was also at that tyme but fewe pore people, and yet they did not begge, but there was giuen them ynough vnaxed; for there was at that time none of these rauinous wolves to axe it from them, as it apperith yn the actes of thappostles. Is it any merueill though there be nowe so many beggers, theues, and ydell people? Nay truly.

¶ Whate remedy: make lawes ageynst them? I am yn doubt whether ye be able: Are they not stronger in your owne parliament house then your silfe? whate a nombre of Bisshopes, abbotes, and priours, are lordes of your parliament? are not all the lerned men in your realme in fee with them, to speake yn your parliament house for them ageinst your crowne, dignite, and comon welth of your realme; a fewe of youre owne lerned counsell onely excepted? whate lawe can be made ageinst them that may be aduaylable? who is he (though he be greued never so sore) for the murdre of his auncestre, rauisschement of his wyfe, of his doughter, robbery, trespas, maiheme, dette, or eny other offence, dare ley it to theyre charge by any wey of accion? and if he do, then is he by and by, by theyre wilynesse, accused of heresie. ye, they will so handle him or he passe, that except he will bere a fagot for theyre pleasure, he shal be excommunicate, and then be all his accions dassed. So captyue are your lawes vnto theym, that no man that they lyst to excommunicat, may be admitted to sue any accion in any of your courtes. If eny man yn your sessions dare be so hardy to endyte a prest of eny suche cryme, he hath, or the yere go out, suche a yoke of heresyey leyd in his necke, that it maketh him wisshhe that he had not done it. Your

grace may se whate a worke there is in London, howe the bisshoppe rageth for endyting of certayn curates of extorcion and incontineney, the last yere in the war-moll quest.<sup>1</sup> Had not Richard hunne commenced acycon of premunire against a prest, he had bin yet a-lyue, and none eretik, a tall, but an honest man.

as your Grace has seen, because certain curates were charged with incontineney. Take Richard Hunne's case.

¶ Dyd not dyuers of your noble progenitours,—seynge theyre crowne and dignite runne ynto ruyne, and to be thus craftely translated ynto the hondes of this myscheuous generacyon,—make dyuers statutes for the reformacyon therof, emong whiche the statute of mortmayne was one? to the intent that after that tyme they shulde haue no more gyuen vnto them.

Did not your ancestors pass the statute of mortmain against them?

But whate awayled it? haue they not gotten ynto theyre hondes, more londes sins, then eny duke yn ynglond hath, the statute notwithstanding? Ye, haue they not for all that translated ynto theyre hondes, from your grace, half your kyngdome thoroughly? The hole name, as reason is, for the auncientie of your kyngdome, whiche was bfore theyrs, and out of the whiche theyrs is growen, onely abiding with your grace? and of one kyngdome made tweyne: the spirituall kyngdome (as they call it), for they wyll be named first, And your temporall kingdome. And whiche of these .ij. kingdomes (suppose ye) is like to ouergrowe the other? ye, to put the other clere out of memory? Truly the kingdome of the bloudsuppers; for to theym

But what avails it? They have since got more land than any Duke has.

The kingdom is divided, and they have the overgrowing share;

<sup>1</sup> There is a custome in the Cytie, ones a yeaere to haue a quest called the *warnmall queste*, to redress vices; but alas, to what purpose cometh it, as it is vsed? If a pore man kepe a whore besides hys wife, & a pore mans wyfe play the harlot, they are punished, as well worthie. But let an alderman, a Gentleman, or a riche man, kepe whore or whores, what punishment is there? Alasse, this matter is to bad.—*The Lamentacyon of a Christen against the Cytie of London* (by Henry Brinklow, A.D. 1542), ed. 1548, sign. b. vii. back.

*Quest* or *Quest Men*, Persons who are chosen yearly in every Ward, and meet about *Christmas*, to enquire into Abuses and Misdemeanours committed therein, especially such as relate to Weights and Measures.—*Kersey's Phillips*, ed. 1706.

for they gain,  
but never give.

is giuen daily out of your kingdome. And that that is ones gyuen theim, comith neuer from theim agein. Suche lawes haue they, that none of theim may nether gyue nor sell nothing.

They will break  
any law, and will  
swallow all  
your substance.

Whate lawe can be made so stronge against theim that they, other with money, or elles with other policy, will not breake and set at nought? whate kingdome can endure, that euer gyuith thus from him, and receyueth nothing agein? O, howe all the substaunce of your Realme forthwith, your swerde, power, crowne, dignite, and obedience of your people, rynneth hedlong ynto the insaciabill whyrlepole of these gredi goulafres,<sup>1</sup> to be swallowed and deuoured!

They profess to  
pray for us and  
deliver us from  
purgatory,

¶ Nether haue they eny other coloure to gather these yerely exaccions ynto theyre hondes, but that they sey they pray for vs to God, to delyuer our soules out of the paynes of purgatori; without whose prayer, they sey, or at lest without the popes pardon, we coude neuer be deliuered thens; whiche, if it be true, then is it good reason that we gyue theim all these thinges, all were it C times as moche. But there be many men of greate litterature and iudgement that, for the love they haue vnto the trouth and vnto the comen welth, haue not feared to put theim silf ynto the greatest infamie that may be, in abiectiō of all the world, ye, yn perill of deth, to declare theyre oppinion in this mather, whiche is, that there is no purgatory, but that it is a thing inuented by the couitousnesse of the spiritualie, onely to translate all kingdomes from other princes vnto theim, and that there is not one word spoken of hit in al holy scripture. They sey also, that if there were a purgatory, And also if that the pope with his pardons for money may deliuer one soule thens; he may deliuer him aswel without money: if he may

(which in many  
learned men's  
opinion exists  
not, but is their  
own invention;)

and if there be  
a purgatory, the  
Pope might  
deliver 1000 as  
well as one.

<sup>1</sup> Fr. *Goulfre*, *Gouffre*: m. A gulfe; whirlepole, deepe hole, or vnumeasurable depth (of waters) that swallows vp whatsoeuer approaches, or comes into, it,—*Cotgrave*.



deliuer one, he may deliuer a thousand : yf he may deliuer a thousand, he may deliuer theim all, and so destroy purgatory. And then is he a cruell tyraunt without all charite, if he kepe theim there in pryson and in paine, till men will giue him money. ¶ Lyke wyse saie they of all the hole sort of the spiritueltie, that if they will not pray for no man but for theim that gyue theim money, they are tyrauntes, and lakke charite, and suffer those soules to be punisshed and payned vncheritably, for lacke of theyre prayers. These sort of folkes they call heretikes, these they burne, these they rage ageinst, put to open shame, and make theim bere fagottes. But whether they be heretikes or no, well I wote that this purgatory, and the Popes pardons, is all the cause of translacion of your kingdome so fast into their hondes ; wherfore it is manifest it can not be of christ, for he gaue more to the temporall kingdome, he hym silfe paid tribute to Cesar, he toke nothing from hym, but taught that the highe powers shuld be alweys obeid : ye, he him silf (although he were most fre lorde of all, and innocent,) was obedient vnto the highe powers vnto deth. This is the great scabbe why they will not let the newe testament go a-brode yn your moder tong, lest men shulde espie that they, by theyre eloked ypochrisi, do translate thus fast your kingdome into theyre hondes, that they are not obedient vnto your highe power, that they are cruell, vnelene, vnmmerciful, and ypochrites, that thei seke not the honour of Christ, but their owne, that remission of sinnes are not giuen by the popes pardon, but by Christ, for the sure feith and trust that we haue in him. Here may your grace well perceyue that, except ye suffer theyre ypocrisie to be disclosed, all is like to runne ynto theire hondes ; and as long as it is couered, so long shall it seme to euery man to be a greate ympiete not to gyue theim. For this I am sure

Again, they pray only for those who giue them money.

They who cannot pay, are called hereties, and are burnt.

Christ, on the contrary, upheld powers, and paid tribute,

which is their reason for withholding the New Testament in the mother tongue ;

for they seek their own honour, not Christ's.

All are of my  
opinion, Lords,  
Knights, and  
yeomen;  
else the statute  
of mortmain robs  
us of salvation.

your grace thinketh, (as the truth is,) I am as good a man as my father, whye may I not aswell gyue theim as moche as my father did? And of this mynd I am sure are all the loordes, knightes, squire, gentilmen, and yemen in england; ye, and vntill it be disclosed, all your people will thinke that your statute of mortmayne was never made with no good conscience, seing that it taketh away the liberte of your people, in that they may not as laufully by theire soules out of purgatory by gyuing to the spiritualte, as their predecessours did in tynes passed.

Declare, then,  
their hypocrisy.

¶ Wherfore, if ye will eschewe the ruyne of your crowne and dignite, let theire ypcrisye be vttered; and that shalbe more spedfull in this mater then all the lawes that may be made, be they never so stronge. For to make a lawe for to punissh euy offender, except it were more for to giue other men an ensample to beware to committe suche like offence, whate shuld yt awayle? Did not doctour Alyn, most presumptuously, nowe yn your tyme, ageynst all his allegiaunce, all that ever he coude, to pull from you the knowlege of suche plees as long vnto your hyghe courtes, vnto an other court, in derogacion of your crowne and dignite? Did not also doctor Horsey and his complices most heynously, as all the world knoweth, murdre in pryson that honest marchaunt Richard hunne? For that he sued your writ of premunire against a prest that wrongfully held him in ple in a spirituall court, for a mater wherof the knowlege belonged vnto your hyghe courtes. And whate punisshement was there done, that eny man may take example of to beware of lyke offence? truely none, but that the one payd fife hundreth poundes (as it is said) to the bildinge of your sterre chamber; and when that payment was ones passed, the capteyns of his kingdome (bicause he faught so manfully ageynst

Doctor Allen  
appealed to  
another Court to  
the derogation  
of your dignity;

and Doctor  
Horsey murdered  
Hunne, because  
he sued a writ of  
"premunire"  
against a priest.

And one offender  
paid only £500  
fine;

your crowne and dignite,) haue heped to him benefice vpon benefice, so that he is rewarded tenne tymes as moche. The other (as it is seid) payde sixe hundreth poundes for him and his complices, whiche, forbicause that he had lyke wise faught so manfully ageynst your crowne and dignite, was ymmediatly (as he had opteyned your most gracyous pardon,) promoted by the capiteynes of his kingdome with benefice vpon benefice, to the value of .iiij. tymes as moche. who can take example of this punisshement to be ware of suche like offence? who is he of theyre kingdome that will not rather take courage to committe lyke offence, seying the promotions that fill to this men for theyre so offending? So weke and blunt is your swerde to strike at one of the offenders of this croked and peruers generacyon.

the other, £600; and each has received many times over what he was fined, from pluralities. Thus

others will be encouraged to commit like offences, so weak is your power to strike the offenders.

¶ And this is by the reason that the chief instrument of your lawe, ye, the chief of your counsell, and he whiche hath youre swerde in his hond, to whome also all the other instrumentes are obedient, is always a spirituall man, whiche hath euer suche an inordinate loue vnto his owne kingdome, that he will mainteyn that, though all the temporall kingdoms and comonwelth of the worlde shulde therfore vtterly be vndone. Here leue we out the gretest mater of all, lest that we, declaring suche an horrible carayn of euyll ageinst the ministres of iniquite, shulde seme to declare the one onely faute, or rather the ignorance, of oure best beloued ministre of rightousnesse, whiche is, to be hid till he may be lerned by these small enornitees that we haue spoken of, to knowe it pleynty him silf. But whate remedy to relene vs your poore, sike, lame, and sore, bedemen? To make many hospitals for the relief of the poore people? Nay truely. The moo the worse; for euer the fatte of the hole foundation hangeth on the prestes berdes. Dyuers of your noble predecessours,

The reason is that your Chancellor is a priest, who loves only his own kingdom.

Many hospitals will not help us, for the priests will get the best part, as they haue done with your ancestors' gifts.

They are paid  
for masses, yet  
never say one.

Your Grace  
should build us  
a sure hospital,  
and send these  
loobies to work  
for their living.

Genesis iii. 19.

Whip them at  
the cart's tail  
that they take not  
our alms; so  
shall we decrease,  
and your power  
not pass from  
you;

your people will  
obey you, the  
idle work, people  
marry, be rich,  
have the gospel  
preached, none  
beg,

kinges of this realme, haue gyuen londes to monasteries to giue a certain somme of money yerely to the poore people, wherof, for the aunciente of the tyme, they giue neuer one peny: They haue lyke wise giuen to them to haue a certeyn masses said daily for them, wherof they sey neuer one. If the Abbot of westminster shulde sing every day as many masses for his founders as he is bounde to do by his foundation, .M. monkes were to fewe. wherfore, if your grace will bilde a sure hospitall that neuer shall faile to releue vs, all your poore bedemen, so take from them all these thynges. Set these sturdy lobies a brode in the world, to get them wines of their owne, to get their liuing with their laboure in the swete of their faces, according to the commaundement of god, Gene. iij. to gyue other idell people, by their example, occasion to go to laboure. Tye these holy idell theues to the cartes, to be whipped naked about euery market towne til they will fall to laboure, that they, by theyre importunate begging, take not away the almesse that the good christen people wolde giue vnto vs sore, impotent, miserable people, your bedemen. Then shall, aswell the nombre of oure forsaid monstrous sort, as of the haudes, hores, theues, and idell people, decrease. Then shall these great yerely exaccions cease. Then shall not youre swerde, power, crowne, dignite, and obedience of your people, be translated from you. Then shall you haue full odedience of your people. Then shall the idell people be set to worke. Then shall matrimony be moche better kept. Then shal the generation of your people be encreased. Then shall your comons encrease in riches. Then shall the gospell be preached. Then shall none begge oure almesse from vs. Then shal we haue ynough, and more then shall suffice vs; whiche shall be the best hospitall that euer was founded for vs. Then shall we

daily pray to god for your most noble estate long to endure.<sup>1</sup>

and all will ever  
pray for your  
long reign.

*Dm̃ins caluūm fac regem.*

<sup>1</sup> Sir Frauncys Bygod, about 1534, in his *Treatyse concernyng impropriations of benefices* thus supports the last remedy of the *Beggars Supplicacyon*:

But & as man might (sauyng their pacyence) be so bolde with them / what mater were it (vnder correction I speke) if all these improffytable sectes / and stronge sturdye route of idle paunches were a lytell poorer / to thende that the trew relygion of christ might thereby somthyng be sette vp and avauised / and syfficient company of the ministers of goddes true worde prouyded for in all partes. I praye you / what an idle sorte be founde and brought vp in Abbeyes / that neuer wyll laboure whyles they ben there / nor yet whan they come thence to other mens seruyce / in so moche that there goth a comen prouerbe: That he which hath ones ben in an abbey, wyll euer more after be slouthfull / for the whiche cause they ben called of many men / Abbey loutes or lubbers. And some saye that many of our holye fathers spende nat a lytell vpon my cosyn Iane / Elisabeth and Marget (ye knowe what I meane) inso-moche that / that euen they which be most popysshe of all / & knowe none other god almost than the gret draf-sacke of Rome / can nat deny this to be trew.

Idle paunches  
should be poorer.

Once in an Abbey,  
ever idle; Abbey  
louts or lubbers.

Monks' women.

Page 6. *Priests' immorality.* The women were occasionally to blame. In a story told by the author of the *Ménagier de Paris*, a young wife married to an old husband from whom she gets no solace, thus answers the question of whom she will love: "Mère, j'aimeray le chapellain de ceste ville, car prestres et religieux craignent honte, et sont plus secrets. Je ne vouldroie jamais amer un chevalier, car il se vanteroit plus tost, et gaberoit de moy, et me demanderoit mes gages\* à engager." Compare Robert of Brunne's complaint in his *Handlyng Synne* of these women who *will* have priests. But the lechery of the monks, &c., is continually complained of throughout Early English Literature; see the series of extracts on this subject in my *Ballads from Manuscripts*, p. 59—86 (Ballad Soc. 1868), and *The Image of Ypoecresye*, ib. p. 194-5, &c.

Page 6. *Check to the increase of Population by the not-marrying of the Clergy.* This is complained of in the Record-Office MS Dialogue between Cardinal Pole and Lupton, written by Starkey, one of Henry VIII's chaplains, which Prof. Brewer has recommended us to print, and which we have had copied. Lupton is made to say: "I haue thought long & many a day a grete let to the increse of chrystian pepul, the law of chastyte ordeynyd by the church, whych hyndyth so gret a multytude of men to lyue theraftur, as, al secular prestys, monkys, frerrys, charnonys, & nunnyes, of the wych, as you know, ther ys no smal nombur; by the reson wherof the generatyon of man ys maruelously let & mynyschyd. Wherfor, except the ordynance of the church were, (to the wych I wold neuer gladly rebel,) I wold playnly Iuge that hyt schold be veray conuenient somethyng to relese the band of thys law; speccially consyderyng the dyfficulty of that grete vertue, in a maner aboue

\* Peut-être faudroit-il bagues, effets, joyaux.—J. Pichon.



nature. . . " Pole answers "... in this mater I thynke hyt were necessary to tempur thys law, *and*, at the lest, to gyue *and* admyt al secular prestys to mary at theyr lyberty, consydyryng now the grete multytude *and* nowmbur of them. but as touchyng monkys, chanonys, frerys, *and* nunnys, I hold for a thyng veray conuenient *and* mete, in al wel-ordeynyed commyn welys, to haue certayn monasterys *and* abbeys, to the wych al such as, aftur lauful proue of chastyte before had, may retyre, *and* from the besynes *and* vanyte of the world may wythdray themselfe, holly gynyng theyr myndys to prayer, study, *and* hye contemplayon. thys occasyon I wold not haue to be taken away from chrystyan pollycey, wych ys a grete comfort to many febul *and* very soulys, wych haue byn oppressyd wyth wordly vanyte. but as touchyng the secular prestys, I vturly agre wyth you, *and* so that obstacul to take away, wych lettith by many ways the increse of our pepul, as many other thyngys dow more also; among the wych a nother chefe, aftur my mynd, ys thys:—that grete multytude of *seruyng* men, wych in *seruyce* spend theyr lyfe, neuer fyndyng mean to marry conueniently, but lyue alway as commyn corruptarys of chastyte."

Page 7. The good luck of a wench who is taken as a priest's concubine is noticed in the *Poem on the Evil Times of Edward II.* (Camden Soc. *Political Songs*, 1839; Percy Soc. 1849), "And wel is hire that first may swich a parsoun kache in londe," *ib.* p. 62.

Pages 9 and 12. *Richard Hunne's case.* "In the year 1514, a citizen of London, named Richard Hunne, a merchant tailor, fell into a dispute with the parson of a country parish in Middlesex, about a gift of a bearing-sheet, which the clergyman demanded as a mortuary, in consequence of an infant child of Hunne's having died in his parish, where it had been sent to be nursed. Hunne made some objection to the legality of the demand; but it is probable that he was secretly inclined to the new doctrines, and that this was the true cause of his refusal. Being sued in the spiritual court by the parson, he took out a writ of premunire against his pursuer for bringing the king's subjects before a foreign jurisdiction, the spiritual court sitting under the authority of the pope's legate. This daring procedure of the London citizen threw the clergy into a fury, and, as the most effectual way of crushing him, recourse was had to the terrible charge of heresy, upon which Hunne was apprehended and consigned to close imprisonment in the Lollard's Tower at St Paul's. After a short time, being brought before Fitzjames, bishop of London, he was there interrogated respecting certain articles alleged against him, which imputed to him, in substance, that he had denied the obligation of paying tithes,—that he had read and spoken generally against bishops and priests, and in favour of heretics,—and lastly, that he had 'in his keeping divers English books prohibited and damned by the law, as the Apocalypse in English, epistles and gospels in English, Wycliffe's damnable works, and other books containing infinite errors, in the which he hath been long time accustomed to read, teach, and study daily.'\* It appears that Hunne was frightened into a qualified admission of the truth of these charges; he confessed that although he had not said exactly what was asserted, yet he had 'unadvisedly spoken words somewhat sounding to the same; for the which,' he added, 'I am sorry, and ask God mercy, and submit me unto my Lord's charitable and favourable correction.' He ought upon this, according to the usual course, to have been enjoined penance and set at liberty; but, as he still persisted in his suit against the parson, he was the same day sent back to his prison, where, two days after, namely, on the 4th of December, he was found

\* Fexe, p. 737.



suspended from a hook in the ceiling, and dead. The persons in charge of the prison gave out that he had hanged himself; but a coroner's inquest came to a different conclusion. According to the account in Burnet, the jury 'did acquit the dead body, and laid the murder on the officers that had the charge of that prison;' and, by other proofs, they found the bishop's sumner\* and the bellringer guilty of it. It may be suspected that the excited feelings and strong prejudices of the coroner's jury had perhaps as much share as the weight of circumstantial evidence in winning them to the belief of this not very probable story; but, be that as it may, the violence and indecency shown on the other side were fully equal to any they can be thought to have displayed. While the inquest was still going on, the Bishop of London and his clergy began a new process of heresy *against Hunne's dead body*. The new charges alleged against Hunne were comprised in thirteen articles, the matter of which was collected from the prologue or preface by Wycliffe to the English Bible that had been found in his possession. He, or rather his dead body, was condemned of heresy by sentence of the Bishop of London, assisted by the Bishops of Durham and Lincoln, and by many doctors of divinity and the canon law; and the senseless carcase was actually, on the 20th of December, committed to the flames in Smithfield. This piece of barbarity, however, shocked instead of overawing the public sentiment. The affair now came before the parliament, and a bill, which had originated in the Commons, was passed, restoring to Hunne's children the goods of their father, which had been forfeited by his conviction. This, however, did not put an end to the contest. When the Bishop of London's chancellor and sumner had been charged on the finding of the coroner's jury as both principals in the murder, the convocation, in the hope probably of drawing off attention to another part of the case, called before them Dr Standish, who had asserted the claims of the civil power in a debate before the king, and put him upon his defence for what he had said on that occasion; and an appeal was made to the conscience of Henry, that he would not interpose to shield the delinquent from justice, as he regarded his coronation oath, and would himself escape the censures of holy church. Henry's headstrong and despotic character had scarcely yet begun to develop itself; his pride as a true son of the church had received no check from coming into collision with any of his other selfish and overmastering passions: when the convocation, therefore, assailed him in this manner on the one hand, and the parliament on the other likewise addressed him 'to maintain the temporal jurisdiction, according to his coronation oath, and to protect Standish from the malice of his enemies,' he was thrown into great perplexity. So, to free his conscience, he commanded all the judges, and the members both of his temporal and his spiritual councils, together with certain persons from both houses of parliament, to meet at Blackfriars, and to hear the matter argued. This was done accordingly; and the discussion was terminated by the unanimous declaration of the judges, that all those of the convocation who had awarded the citation against Standish had made themselves liable to a premunire. Soon after, the whole body of the lords spiritual and temporal, with all the judges and the king's council, and many members also of the House of Commons, having been called before the king at Baynard's Castle, Cardinal Wolsey, in the name of the clergy, humbly begged that the matter should be referred to the final decision of the pope at Rome. To this request, however, Henry made answer, with much spirit, 'By the permission and ordinance of God, we are king of England; and the kings

\* Or summoner, the officer employed to cite parties before the ecclesiastical courts, more commonly called the apparitor.



of England in times past had never any superior, but God only. Therefore, know you well that we will maintain the right of our crown, and of our temporal jurisdiction, as well in this as in all other points, in as ample a manner as any of our progenitors have done before our time.' The renewed solicitations of the Archbishop of Canterbury, that the matter might at least be respited till a communication could be had with the court of Rome, had no effect in moving the king from his resolution; and Dr Horsey, the Bishop of London's chancellor, against whom warrants were out, on the finding of the inquest, for his trial as one of the murderers of Hunne, seemed to be left to his fate. At this point, however, the clergy, or perhaps both parties, saw fit to make advances towards an accommodation: it was agreed that Horsey should surrender to take his trial; that he should not stand upon his benefit of clergy, but plead not guilty: and that, satisfied with this concession, the attorney-general should admit the plea, and the prisoner be discharged. This form was gone through, and Horsey immediately left London, where, it is said, he never again showed his face. Dr Standish, however, was also, by the king's command, dismissed from his place in the court of convocation, so that the issue of the business by no means went altogether against the clergy. But, besides the augmented popular odium to which they were exposed, from the strong suspicion that was entertained that Hunne had been murdered, a heavy blow had been undoubtedly dealt at their favourite pretension of exemption from the jurisdiction of the civil courts in criminal cases."—*Macfarlane's Cab. Hist. of England*, vol. vi., p. 113—116.

Page 12. *Doctor Alyn*. By the sayd power Legantine, he [Wolsey] kept also generall visitations through the Realme, sending Doct. Iohn Alein, his Chaplein, riding in his gowne of Veluet, & with a great traine, to visite all religious houses.—*Fore*, 1576, 3rd edit., p. 960.

Page 2. *The tenth part of every seruauntes wages*. "Then the proving of testaments, the prizing of goods, the bishop of Canterbury's prerogative; is that not much through the realm in a year? *There is no servant but that he shall pay somewhat of his wages*."—Tyndale's *Obedience of a Christian Man*, Parker Soc.'s edit. of Tyndale's "Works," vol. i. p. 237.

# A Supplication

to our moste Soueraigne Lorde  
of Kynges Henry the Eyght /, Kyng of En-  
gland, of Fraunce, and of Irelande /, & moste  
errest Defender of Christes Gospell /: Supre-  
me Heade vnder God here in Erthe /,  
next & immediatly of his Chur-  
ches of Englande and  
Irelande. .:

(   )

..

Matthei .iv.

The harweste is greate, but the laborers are fewe. Wherefore praye the  
lorde of the harweste to sende forth laborers into his harweste. .: .: .:



A Supplication to our moste  
Soueraigne Lorde Kynge Henry the Eyght,  
Kynge of England /, of Fraunce /,  
and of Irelande, &c.

<sup>1</sup> M Ost dreade Soueraigne Lorde & most Christen Prynce, / when I remembre the lamentable & wonderfull great blyndnes wherin the most parte of all Englande, not onely of *the* layete, called the temporaltie /, but also of the clergie, / haue pytnously erred and wandered many hundereth yeres /, acceptinge /, reputynge /, & most vngodly, / erronyously /, and blyndely /, estemyng the bysshop of Rome to be supream head ouer & aboue all Christen congregations; and in dyuerse other poyntes suche as be touchynge *the* necessarye articles of our faithe; I coulde not but meruell how, and by what meanes, suche pestilent errours and horrible darke blyndenes coulde, or myght, entre /, invade, & ouerflowe this your realme /, & to contynewe so longe in the same /, not espied /, perceyued /, nor repelled. Consideringe, that by all that tyme and space, this your realme (as the most parte of men dyd then iudge and esteame) was well endowed /, replenyshed /, and furnyshed with many profounde lerned clerkes /, wherof some were bysshops, arche-deacons /, deanes /, prebendaries /, parsons /, doctors /, bachelars in deuinite /, & other profounde

When I remember the blindness in which the clergy and laity of England have wandered many hundred years,

I can but marvel why such errors have been allowed to continue.

Considering the number of learned men in this realm,

clerks of both universities,

<sup>1</sup> A six-line ornamental initial letter in the original.

lernerd clerkes in bothe *the* Vniuersytees, which were /  
 graue /, sage /, & auneyent fathers. Contemplating  
 and reuoluinge these things in my mynde—not a lytle  
 moued /, troubled /, and vexed with *the* same /—I  
 applied me *with* all my powre & dyligence, exquysytely  
 to serche & to knowe the originall grounde & cause  
 therof. And, in conclusyon, amongst other things it  
 chaunced me to reade in the .v. chapitre of Ezay a pro-  
 position that muche lamenteth *the* captyuite and bond-  
 age which commeth & groweth to all people for lacke  
 of knowlege in Godds Worde /; sayeng /, “Therefore  
 commeth my flocke also into captyuite /, because they  
 haue not vnderstandinge /; their glory is famyshed  
*with* hunger /, & their pryde marred *with* thyrste.  
 Therefore gapeth hell and openeth her mouthe meruel-  
 ously wyde.” By this text, graciouse Lorde, it ap-  
 peareth that all myserable blyndenes, captyuite, &  
 bondage vnder synne /, commeth for lacke of knowlege  
 in Gods Worde. I had forgotten, at that tyme /, that  
 Christ reprobued the Pharasees /, sayeng /, “You erre  
 not knowinge the Scriptures;” which reprove and re-  
 buke shulde haue ben a suffyeient admonycion and  
 doctryne to me, and to all other; wherby we myght  
 haue knowen that all erreure commeth for lacke of  
 vnderstandinge & knowlege in the Scriptures. But  
 by what reason, then, coulde there be suche erreure and  
 blyndenes for lacke of knowlege in Gods Worde in  
 this your realme, most gracyouse Lorde /, seing there  
 were suche profounde clerkes, & auneyent fathers /,  
 bysshops, and studentes in the same /, which dyd  
 teache & preache vnto the people continually? The  
 Apostle Paul, in the .vi. chapitre to Timothe, descrybeth  
 two kyndes of doctrynes; / the one he calleth a godly  
 doctryne & a doctryne of helth /; the other he calleth  
 a proude doctrine, full of vnprofitable questions /,  
 stryuyng more for wordes than for godly knowlege /;

I tried to find out  
 the cause of this  
 blindness,

and happening to  
 read the fifth  
 chapter of Isaiah,

I found that lack  
 of knowledge was  
 the cause of all  
 the harm.

*Mar. xij.*

I had forgotten  
 that Christ said,  
 “Ye do err, not  
 knowing the  
 Scriptures,”  
 which rebuke  
 ought to have  
 been sufficient.

But how could  
 there be error  
 from not knowing  
 the Scriptures?

There are  
 numbers of pro-  
 found clerks and  
 ancient fathers  
 in the country  
 who teach the  
 people.

But Paul says  
 there are two  
 kinds of know-  
 ledge,  
 one a doctrine  
 of health,  
 the other unprofit-  
 able



“wherof spryngeth envy /, stryffe /, raylings /, euyl surmysyngs /, & vayne dysputacions of men with corrupte myndes, destytute of the trueth /; which thinke that luere is godlynes.” This kynde of lernynge and subtle dysputacyons vnto this daye we call scole matters /; from the which Paul commaundeth all Christyans to separate them selues. Soche clerkes, sayeth Paul /, be “euer lernynge /, but neuer atteyne to the knowlege of the trueth.” With suche wayne, vngodly, and vnprofitable lernynge /, this your realme, most redoubted Soueraigne, was ouer moche replenyshed through the preachinge and teachinge of suche scole men & subtyll disputers /; otherwise called deceyuers. Which was one of the causes of our myserable blyndnes /, and of dyuerse errors and abuses spronge vp and crept into this your Graces realme. For certeynely, if *the* clerkes, of this your Graces realme /, had bene endowed *with* true knowlege of Gods Worde /, and had also syncerely preached the same /, althoughe suche errors and blyndnes had entered into this realme /; yet they shulde neuer haue so longe continewed in the same /, but we shulde haue bene delyuered through the Worde clerely from them. As Christe saieth: “If you continewe in my wordes /, *Io. viij.* then are you my very disciples /, & shall knowe the trueth /, & the trueth shall delyner yow /, and make you free.” Therefore, most dread Soueraigne Lorde /, seinge *that* all erroure /, spyrytuall blyndnes /, myserable captyuite /, and seruyle bondage vnto synne, cometh for lacke of knowlege and syncere vnderstandinge in the Holy Scriptures /; and, of *the* contrarye parte, / through *the* knowlege & syncere vnderstandinge of the Holy Scripturs, we knowe God our Father and his Sonne, Ihesus Christ, our Lorde /, which is eternall liffe /; we be also become free from all condemnation of synne. And through the syncere and true know-

—from the latter we must separate ourselves.  
*ij. Ti. iij.*

There is too much vain, ungodly learning, and this comes of the preaching and teaching of the Schoolmen,

for which the clergy are to blame,

because they do not sincerely preach God's word.

As all errors spring from a lack of knowledge of the Scriptures,

and through knowledge of them we know God,  
*Io. v.*  
*Io. xviij.*

and become His children, leage of *the* Worde we be newly regenerate, & become *the* childerne of God /, the habitacle and dwellinge place of the Holy Ghoste /, which moueth & steareth vs euer to mortefye the fleshe /, & all her synfull lusts and concupiscence, / [and] to abhor and resyst vice.

nothing is so necessary as God's Word. What is then so necessary, good, and profitable for the Christian people, bothe spirituall and cyuile wealthe /, as the Worde wherby we receyue faithe /, & by faithe, the Holy Ghoste? What troubleth all commen

Treacen, murder, theft, adultery, and such, trouble nations; wealthes /, but treason /, murder, thefte /, couetousnes, / adulterye /, extorcion /, whordome, / dronkenes /, periurye /, & suche other synne? / as saythe the

*Prouer. xiiij.* Holy Ghoste: "Iustice and rightuousnes maketh the people wealthy /; but synne maketh *the* people most myserable." And all these the faithfull, through

and these the faithful try to avoid and abolish, *the* true and syncere vnderstandinge of Gods Worde /, doo euer studye and labour to ouercome /, and vtterly to abholyshe by faythe. As Paul sayeth: "They

*Gal. v.* which be Christes /, doo crucefy the fleshe, with her lustes and concupiscence." All good workes and counceyles [be] encreased and stablyshed through faythe. There is no study /, striffe /, nor laboure agaynst synne, but through faithe. All conseyences that be quyet

endeavouring to crucify the flesh, and by faith to do all good works, from synnes /, onely through faythe be made quyet. As Paul sayeth /: "Because we are iustifyed by faithe /, we are at peace with God, through our Lorde Ihesus Christ." What counforte hathe any Christian

*Rom. v.* man in aduersytyes /, temptacions /, desperation /, but onely by fayth in Gods Worde? The Christyan man hathe noo refuge nor helpe to resyst synne /, but onely by Gods Worde /, as our Sauour Christ dyd /; wherein he must fyxe a sure and constant faythe. Faythe causeth vs and all ours / to be acceptable in *the* syght of God. For a conclusion /: "What soeuer is not of fayth that same is synne." And withowte a constante

God's Word is the comfort of the Christian, who has no refuge, no help but this, and sure fayth /, it is impossyble to please God. All

*Mat. iiij.*

*Roma. xiiij.*

*Heb. vi.*

men maye well perceyue / that, by the lawes, and by the iuste execution of them /, although synne may be for a tyme cohybyted and restrayned /, yet it can not be suppressed and abholysed /, but onely through fayth. For there was neuer more godly lawes made for the punyshmente of synne /, nor neuer more iuste and godly executyon of lawes admynistred /; and yet there was neuer more synne raygnyng. For cnytle lawes made by man / can not be of greater effycacye or strength /, nor worke greater perfectyon, vertue, and good wyll in man /, than the lawe of God: but the lawe of God not onely worketh no obedyence or vertue /; but rather, through occasyon taken of the infirmyte of the fleshe /, steareth vp synne, / as sayethe Paul: "I knowe not what luste dyd meane /, except the lawe had sayed, thou shalte not luste. But synne toke an occasyon by the meanes of the commandemente /, and wrought in me all maner of concupiscence: / for verely, *without* the lawe, / synne was dead." "I ones," sayth Paul /, "lyued *without* lawe; but when the commandement came /, synne reuyued, / and I was dead /: and *the* very same commaundement, which was ordeyned vnto lyffe /, was founde to be vnto me an occasyon of deathe." But nowe, graciouse Lorde /, for asmoche as it appeareth / *that* the lawe of God was not geuen to take away synne /, but rather to declare and to punyshe synne; moche lesse any lawe made by man / can auoyde and put away synne. But faythe is the true instrument appoynted by God /, wherby synne is ouercome & exiled. As the Scripture sayeth /, that "God through faith / dothe purifye & make cleane all hartes." Also Christ sayethe /: "Nowe are yow cleane /, by the meanes of the wordes / whiche I haue spoken vnto you." This faythe shall cause /, noryshe, and breade / true obedyence /, and all other vertues, in your Graces subiectes hartes /; wherby they shall be

Sin cannot be suppressed except through faith.

There never were more godly laws made, and laws never were better enforced than now; and yet there was never more sin.

God's law does not bring obedience, but rather stirs men up to sin, as St Paul says it did with him.

*Ro. vij.*

*Ro. vij.*

The Law of God was given, not to take away, but to punish, sin.

*Act. xv.*

*Jo. xv.*

Faith will produce and nourish true obedience to the laws of God and man.

*Rom. x.*

And of this faith  
the clergy should  
be ministers ;

because it is their  
duty to teach it  
to the people  
sincerely and  
truly.

If they do not,  
sin will abound,  
and the people  
become divided,  
and perish.

*Act. xx.*

*i. Pe. v.*

*Mal. ij.*

*Proue. xxix.*

*Sa. xiiij.*

The want of  
preaching has  
caused insurrec-  
tions and com-  
motions in the  
realme ;

brought in popish  
blindness,  
vain ceremonies,  
men's traditions,

idolatry,  
and hypocrisie :  
and all for lack  
of a knowledge  
of the Bible.

enforced to laboure, not onely to obserue & kepe Godes lawes /, but also all your Graces ordynances, commaundementes, and lawes /, without grudge or muracyon. This faythe, as the Apostle sayeth, “ com-  
methe by hearinge ” of Gods Worde preached /; wherof  
byshops, parsons /, vicars /, & suche other, called to  
haue spirituall cure /, be, or shulde be, dylygent myn-  
isters /; to whose vocatyon iustely parteyneth to declare  
and publyshe Gods Worde, sincerely & truely, / to all  
the people commytted to their spirituall charge. Most  
myghty Prynce, wherfor, if the pastours appoynted to  
preache & teache Gods Worde /, *within* this your Graces  
realme, / doo not dylygently instructe & teache the  
people commytted to their spirituall charge *with* the  
sayd Worde, / accordinge as they be *commaunded* in  
*the* Scriptures, Act. xx., i. Pet. v., and Malache. ii.<sup>1</sup> ;  
all kynde of synne shall increase and abounde, / & the  
people vtterly be devyded. As sayethe the Holy  
Ghoste : “ When *the* worde of God is not preached, *the*  
people perysheth.” Also the Wyse Man sayethe : “ All  
men be vayne in whom there is not the knowlege of  
God.” Wherfore, without any doubt, *the* wante and  
lacke of preaching of Godes Worde sincerely and truely  
hathe bene the very originall grounde and cause of all  
the insurrection, / *commotion* /, [and] dyscention /,  
which hathe rysen, or begone, within this your Graces  
realme, or any parte therof. For through the want of  
preachyng of Godes Worde synce[re]ly, haue entered  
in all popyshe blyndenes /, vayne & dead ceremonyes /;  
*men*nes tradycions be crept into the conseyences of *the*  
symple innocentes, in the steade of the lawe of God.  
Yea, ydolatrie, and all hypocrysye, *with* detestable  
superstycyon, for lacke of *the* lyght of Godes Worde /,  
is become Gods seruyce. And yet, notwithstandinge  
this wante & lack of knowlege in Godes Worde & the

<sup>1</sup> Orig. .xx.

euyl which commethe manyfestly therof /, (the more it is to be lamented /) there be many popishe monckes, which late were abbottes, (to whom not onely vnworthely /, but also vniustely /, were geuen greate penyons) and many of their covent monckes, hauinge nother lernynge nor other godly qualytyes, (apte, meate, or convenient to be in spirituall pastours) be nowe admytted to haue cure of soules. And some suche which ded neuer knowe what is a soule /, nor yet be able to haue cure ouer one soule, / be nowe admytted to haue charge ouer an hundreth and many moo /, to the increase of all yngnorancye, and all popishe blyndnes /; the hyghe waye & meanes to let in all kynde of synne, / to the vtter dampnacion of all the soules commytted to their spirituall charge. Alas! doo nother *the* patrones of suche benefyces /, nor yet the incumbentes, ponder, or regarde, Gods threatenyngs by his prophete Ezechiell, sayeng: / “As truely as I lyue, sayeth the Lorde, for asmuche as my shepe are robbed, and deuowred of the wilde beastes of the felde, haunyng noo shepetherde, / and seing that my shepherdes take noo regarde of my shepe /, but feade them selues onely, / and not my shepe: Therefore, here the worde of the Lorde, O ye shepherdes: / thus sayeth the Lorde God, Beholde, I my selfe will [be] vpon the shepherdes /, and requyre my shepe from their handes /, and make them cease from feadinge of my shepe; yea, the shepherdes shall feade them selues nomore: / for I will delyuer my shepe owte of their mowthes /, so that they shall not deuoure them after this.” If this threatenynge be not sufficient warnynge & monycion to suche blynde shepherdes /, yet, at the lest, let them feare Goddes curse pronownced in the same chapiter agaynst suche negligent and ingnorant shepherdes; / sayenge: “Woe be to the shepherdes of Israell that feade them selues! /

Many monks are admitted to the cure of souls,

having neither learning nor godly qualities;

some of them never knew what a soul is, and certainly were never able to have cure of souls.

This increases ignorance and sin, and leads to the damnation of the souls committed to their charge.

Patrons and incumbents do not regard God's threatenings

*Ezech.*  
*xxxiij.*<sup>1</sup>

by Ezekiel, against such as rob His sheep to feed themselves.

He will require His sheep at their hands.

If they do not regard this threatening, at least let them fear the curse pronounced by the same prophet, who says:—  
“Woe to the shepherds who feed themselves!

<sup>1</sup> Orig. xiiij.

You have eaten  
the fat, but the  
flock you have  
not nourished."

One shepherd  
cannot attend two  
or three flocks,

especially when  
they are far  
distant.

The duty of a  
good shepherd is  
to seek the lost,  
to call back the  
strayed, to heal  
the broken,

and to adventure  
his life for the  
defence of the  
sheep.

*i. Pe. v.*

His example,  
his pains and  
labours,

his humility,  
his love and care,  
should be seen  
by all men.

shulde not the shepherdes feade the flocke /? yow haue eaten vp the fatt, / yow haue clothed yow with the wolles /, the best fedd haue youe slayne /: but the flocke haue yow not noryshed /." Heauen and erthe shall muche rather perishe /, than these wordes, wherwith God threatened suche pastours, shalbe found vntrue /; that is /, "I will requyre my flocke of the handes of the shepherde." Suerly, most myghty Prynce, it is to busye an office /, to muche and laborouse, for one spirituall shepherde, (althoughe he were very expert and connyng) to guyde, ordre /, and kepe /, two or thre flockes of shepe /, specially beyng so farre dystant one from an other /, that the sayd shepherde can not be dayly present with them /, to se the governaunce of them /, whose nature is dayly to falle into dyuerse offences and spirituall dyseases. For the office of a good shepherd is, not onely to feade his shepe in good pasture /, but also to seke the lost shepe /, to call agayne the strayed shepe in-to the ryght waye /, to salue and to make hole the broken which is broken by aduersyte /, the weake and sycke shepe in the faythe /, with the counfortable promyses of God /, declared in the Gospell /, to make stronge & constant; and, in conclusyon, to aduenture his liffe (if nede requyre) for the defence of his shepe /. Ever circumspecte, lyeng in wayte / to resyst the roringe lyon /, whiche neuer slepeth /, "goinge abowte and seakyng whome he maye deuoure." Suche, I saye, shulde be their diligence and dayly cure over their flocke shewed /, that, not onely their shepe /, but also all other /, seing and perceyvinge<sup>1</sup> their greate paynes and labours sustayned and taken for the helpe and counforte of their shepe /, the gentle entertayninge with all pacyence /, humylyte, & meakenes /; the fatherly love /, cure /, and affection, which the said byshops and other pastours shulde

<sup>1</sup> Orig. seing and preceyvinge.



daylye shewe /, exerceyse, & practyse towardes Christes flocke, commytted to their spirituall charge; shall iudge them, not onely good shepherdes, which enter in by the dore, / but also shall receyue & take them to be most gentle /, prouydent, kynde, / & lovinge spirituall fathers. But, most prudent Gouvernoure, how shall this fatherly cure /, love /, zeale /, & affection /, be shewed by the pastoure to his spirituall shepe, which daylye coweth and wayteth in your Graces householde and courte /, and in other noble & worshipfull mennes howses /, attendinge to please men which is called onely to serue God? And, not withstandinge his callinge to be a shepherde to feade Christes flocke, / yet he will sease se and visyte them ones in the yere. And when he visyteth his shepe /, what ghostely counsell he geveth them /, God knoweth. But, for the more parte /, he loketh more to his owne profett than to their wealthe. Alas! the ambicyouse appetyte & burnynge covetouse desyre of the yerely commodities /, profettes, and advauntages of the benefycees /, hath vtterly extynguyshed and supped vp the spirituall love /, zeale, and affeccion which ought to be in the spirituall shepherdes. So that nowe it is straunge and wonderfull to se, or knowe, one iustely to execute his offyce. Is this the honowre of any kynge, or of any other gouernowre /, that, vnder the cloke and coloure of hys seruyce /, a byshope or pryste, called to feade the flocke of Christe /, shall leaue the same vntaught /, and so transgresse the commaundement of Christe for the pleasure of men? Haue not kynges and other rulers suffieyent to endowe their chapelaynes /, without retayninge suche which haue receyued lyuinge and stypende to be in their churches feadinge Christes flock? This is tomoche dishonoure to the higher powers /, agaynste Goddes commaundement & word, to retayne an other mans seruauzt. But certainly althoughe

The non-resident shepherd cannot show these virtues;

he does not visit his flock above once a year, and when he does what counsel he gives them, God knows.

It is wonderful to find one shepherd who does his duty.

Should a king so transgress for the pleasure of men?

Kings and rulers keep chaplains who have other livings,

which is a great dishonour to the commands of God.



*Anno .xxi.  
Henrici .viij.*

Chaplains to the  
Royal Family  
and others may  
hold two livings,

and every duke,  
marquess, earl,  
viscount, arch-  
bishop, bishop,  
and others,  
may keep two  
chaplains.

Chaplains may  
be non-resident,  
and so may  
pilgrims.

If there had been  
godly shepherds  
we never should  
have agreed to  
this statute.

Are benefices  
nothing but

your Highnes, or other rulers, wolde nother call nor re-  
tayne suche ambyciouse blynde guydes and couetouse  
pastours /, yet they their selfe will, by their fryndes,  
make importunate sute, and laboure to be in seruice  
with youre Magestye, and with other rulers. The  
cause is thys / (one inconuenyence graunted /, many  
folowe): there is a lawe made in this your noble  
realme /, that all spirituall parsons of youre counsell  
maye haue thre benefyces with cure. And all the  
chaplaynes of the Kynge, / Quene /, prynce /, prynces,  
or of any of the Kyngs children /, brethren, / sisters /,  
vncles and aunes /, maye haue lycence to haue two  
benefyces with cure. Euerie duke /, marques /, erle /,  
vycounte /, archebysshope /, bysshope /, with dyuers  
other estates, aswell men as women, maye haue two  
chaplaynes which maye haue two benefyces *with* cure /.  
And also dyuerse other degres of scole maye haue enery  
one two benefyces *with* cure /; so that oner one of his  
cures, althoughe he take the profyttes, yet from that he  
muste neades be no[n] resydent; and, peraduenture, to  
bothe he wilbe no feader nor teacher. And also, in the  
same estatute, all attendaunce in the courte and all  
other attendaunces vpon suche noble and worshipfull  
men which be lycenced to haue chaplaynes, maye be  
not resydent; / yea, pylgrymes, in *the* tyme of goynge  
and *commynge* from their pylgrymage, be by that  
estatute dyspenced to be non resydent. O Lorde,  
where was *the* light of thy worde /, which shulde haue  
bene written in the hartes of the makers of *that* esta-  
tute? If there had ben godly shepherdes, which had  
dyligently executyd their officē and callynge /, we had  
neuer wandered so blyndely to agree or consent to the  
makynge of any suche estatute. Doo we, which thinke  
vs Christen men, esteame spirituall benefyces to be  
nothings els but lyvinges to be geuen at owre pleasure  
to prystes for seruyce done? Is not the benefyce geuen

in respectes of a spirituall offyce to be executyd & done? Doth not God commaunde straitely shepherdes to feade their flocke dyligently? Can man, or any lawe made by man, dyspence with Gods commaundement? O Lorde, in thy handes be the hartes of all kynges and other rulers /; enlyghten theyr hartes, Lorde, with the light of thy worde, that they maye knowe and see this pestylent yll blyndenes /, which so longe hath caused thy shepe to wander in darckenenes. And, when they perceyue it, they maye haue grace and tyme to reforme the same, to thy glory and the helpe of this realme. And I shall euer desyer of God, and wishe in my harte, to all suche as be called to be attendaunte nere youre Magestie, and all other gouernowres /, that for any carnall loue /, fauoure /, or affectyon whiche they beare to any man for kyndred /, frendshipe /, luker /, or otherwise /, they doo not make any suche vngodly suytes, petycions, or requestes to your Highnes, or to any other gouernowre, for any parson to be admytted to any offyce, other spirituall or temporall /, whome they doo not certeynly knowe, by most certeyne and sure proues and witnesses /, to be apte /, meate /, and conuenyent, aswell in lernynge as in condycions /, to exercise, vse, and to occupye suche offyce and rome /, wherunto he, by suche their sute m[ade], / shulde be called /, appoynted, and admy[tte]d (not onely for the shame, rebuke, and trouble whiche, vpon dewe examination had, and founde contrary to their vntrewe sute) myght come and growe to them /; but also for the euyl incommodyte and pestilent myschef which shall ensewe to all suche which shalbe commytted to his or their gouernaunce & charge. Alas, that euer amongst the Chrysten flocke, shulde be knowen or sene that suche office, which in Christes church shulde be the most godly /, most necessary /, most spirituall, and most profytable, bothe to the bodye and sowle /, nowe is become

livings to be given at pleasure? God commands shepherds to feed their flocks, and man's law cannot dispense with God's.

I desire that patrons present only such to any temporal or spiritual office as are well known to them

to be fit for the duties required,

because of the mischiefs which may arise from such wrong appointments.

Alas, that the most godly office should become one of honour and lordly dignity,

and the possessor  
have neither  
virtue nor  
godliness!

It is needful to  
be circumspect  
in the choice of  
ministers,

and to deprive  
such as are unfit,  
because they  
either cannot or  
do not execute  
their office,

and put others  
into their places.

Such as do not  
their duty

are images,  
bearing only the  
name and appear-  
ance of bishop  
or pastor,

a worldely honowre /, a lordely dygnyte, / a riche, carnall, prowde lyuinge, estate, and countenance /; and the possessor therof, hauinge onely the name of a spirituall minyster /, but no vertue nor godly qualyte, which of right ought to be in euery suche minister. If this be well pondered and remembred, most mercyfull Gouernowre, / it is most to be lamented. But seynge this blyndnes hathe so longe contynewed, & somoch ewill hathe ensewed & folowed therof, in the defaulte of godly pastours<sup>1</sup> /; it is not onely nedefull aboue all thinges to be circumspect in chosynge earnestly tryed /, experte /, and well lerned ministers to preache Gods worde syncrely /, but also to compell the same to be demurante, abydinge, and resydent vpon their cures. And all suche whiche be crepte into benefices for luker & aduantage, vpon vntrewe suggestion and false fayned sutes made, / which can not or doo not feade their flocke /, to depryue them of suche benefyces, because they other can not or doo not execute the offyce to that belonginge. Suerly no wyse man lyghteth a candell and putteth hym vnder a bushell. And if he set vp a candell (which, other for lacke of talowe or for other cause, can not geue light) shortely he taketh hym downe and putethe an other which can geue good light in his place. So all godly wyse men will order all spirituall lightes, which in dede can not geue godly lighte for lacke of spirituall grace which shulde be in them. For byshops and other pastors, which be chosyne & instytuted contrary to the ordynauce apoynted & prescribed by Gods Worde /, which other doo not or can not execute the offyce perteyninge to his or their callinge /, be not godly & trewe byshops, but rather images & idolles, hauinge and bearinge onely the name and outwarde apparance of a byshoppe or pastor. But as concernynge the lernynge, vertue, &

<sup>1</sup> Orig. postours.

other godly qualyties whiche parteyne & be of greate necessyte and iustyce requysyte to be in euery godly pastor, / they haue nothings lesse. For if Christ (which sayed to Peter “from henceforthe I make the a fysher to catche men”) doo not endowe *the* offyceer wyth lernynge /, grace, / power, & good will to preache his worde, before patrons present hym to any suche spirituall office ; / the electe and admytted, notwithstandinge the admyssion and patrons presentment, / shall contynually abyde and remayne an hypocryte /: and suche one, which dothe not enter in by the dore /, but presumeth to enter withowte a weddyng garment, / whom Christ condempneth to owtwarde darekenes /, and also callethe hym a thef /, whose rewarde, withowte doubt /, shalbe, at the daye of the laste iudgement, with thefes /; if he repent not, and reasygne vp hys offyce, which he can not execute, fulfill, and performe. Wherefore I mystruste not but that all suche which haue power to present and to admytte theyr clerkes to spirituall offyces, readyng this lytle boke for the discharge of theyr conseyence, and for the glory of God /, the commodyte and vtylite of the common wealthe (which will ensewe the godly presentacyon and admyssion of well lerned /, approued, & godly clerkes to spirituall offyces) will, from thenceforthe, applye and conforme them to the forme and maner of electyon of spirituall mynisters appoynted, prescrybed, and lymyted by Godes Worde /, which is this:—That euery man chosyn to vse any spyrituall offyce /, shulde be fyrste well proued, aswell for theyr lernynge as also for theyr other vertuose condycions. Fyrst for theyr lernynge, wherwith they muste not onely be able to enstruete and teache the people commytted to theyr spyrytuall charge /, but also able to reprove other which resyst the same doctrine /, with many other godly qualyties. As it apperethe in the fyrste Epistle

SUPPLICATION.

3

and have none of the godly qualities requisite. If Christ do not endue him with learning and power to preach before he be admitted,

he shall be considered a hypocrite.

*Ioan. x.*

*Math. xxij.*

Such a one enters not in by the door, is without the wedding garment, and shall be condemned at the last.

Patrons, after reading this book, for the discharge of their conscience,

and the good of the common-wealth,

ought only admit to livings according to God's Word,

which is this, that every man shall be first well proved in learning and virtue.

[i.] *Tim. ii.*  
*Tyt. i.*

Every spiritual  
minister must  
first be proved to  
be learned in the  
Scriptures,

and to have given  
good example of  
living.

Remember why  
your ancestors  
gave bishopries,  
and other patrons  
gave livings.

Kings have given  
bishopries to  
chancellors'  
chaplains,

to almoners,  
clerks of the  
closet, and others;

while God's Word  
disapproves of  
all such gifts.

Noblemen have  
followed their  
example,

of Paul to Tymothe and also to Tyte. Nowe, moste myghty Defender of the Christyan religyon /, seinge that Godds Worde hathe preserybed and declared that euery man, which shalbe called and appoynted to be a spyrituall mynister, muste fyrste be proued and knowen howe godly and spirytually he hathe enstruete and taught the people /; what lernynge he hathe in the Scriptures /, and not in the lawes /, to reprove errors and to condempne heresydes; what paynes he hathe taken in preachynge Godds Worde /; and also whether he hathe geuen good example of lyuinge accordinge to his doctryne. In this maner euery Christian ought to proue his clerke before he other present or admytt hym. But nowe also, moste benyngne Lorde /, consydre of the contrary parte, & remembre for what causes the kynges, your noble progenitors in tymes paste, haue chosen bysshoppes /, & other patrons haue presented theyr clerkes to personages & vicarages to haue cure of sowles. These bothe causes well consydered, no man wyll greatly meruell that we haue wandered so longe in blyndenes. For, in tymes paste, kynges haue geuen theyr bysshoprycks to theyr counsellors / chaplaynes, whiche haue bene daylye attendauntes in the courte /; which also haue done to them good seruice / as enbasadoures /; or to suche which haue taken paynes in theyr householde /, as amners & deanes of the chapel /, clercks of theyr closett, & suche other officers /; where Gods Worde dothe not approue any byshopricke to be geuen to any man for any suche seruice done /, or for any suche paynes taken /; but onely for the gifte whiche he hathe from God to preache his worde /, & for the paynes & laboures susteyned in preachinge of the sayd worde. And as kynges, in tymes paste, haue abused their giftes of byshoprikes /, so noble men & worshipfull men, aswell of the clergie as of the layete, haue abused their presentacions to their prebendes, per-

sonages, & vicarages /; geuing them to their chaplaynes /, or to other, for kyndred in bloude, or for alyaunce; / or els to suche as haue ben surueyours of thier landes, / receyuoures of their rentes /, stuardes of their housholde /, faconers /, gardyners, or to suche other whom they fanoure for suche worldely seruice & qualyties. To suche they geue their benefyces as rewardes or wagies to hyrelynges, for suche seruice done /, or to be done /; hauinge lytle or noo regarde to the great charge and spirituall cure which, by Goddes Worde, belongeth to all suche spirituall offices. For kynges and rulers, in tymes paste, had noo lesse knowleage of any thyng / then of Godes Worde, which the subtyll byshops & crafty prystes were euer studiouse and desyrouse to kepe secrete from the hygher powers. For so longe as Godes Worde was kepte secrete and hyden from gouernours /, so longe the clergie dyd leade, not onely the kynges /, but also, all gouernowres & the commons, whyther they wolde. Thys was the crafty polycye of the clergie /, to kepe the knowleage of Gods Worde from all men /, that they myght vnlawfully and vnworthely be promoted to spirituall cures / and vse the profettes of them vngodly /; and that they myght also contynually exerceyse their lustes and iniquyties. As Paul saythe: "They be agaynste all men; forbyddinge vs to speake to the people wherby they myght be saued /, that they myght fulfill their iniquyte and synne contynually." Haue not some of the byshops, with their retynewe, at this daye practysed their olde polycy to extinguishe the light through all Englande /, that they myght ones agayne leade vs quyetly in darekenes? Is not there a lawe made, through their crafte & subtylte, which geueth power to certayne commysioners, wherof the byshoppes chaunceler or commysarye shalbe named to be two of the commysioners /, which shall haue full power to take

and have presented livings to surveyors, receivers of rents, faleoners, gardeners, and such like, as wages to hirelings, or as rewards.

Kings and rulers were ignorant of God's Word in times past; the bishops were ever anxious to keep it secret.

This was the policy of the clergy to keep this knowledge from all men in order that they might be promoted to spiritual cures.

[i.] *The. ij.*

A law is made through their craft appointing commissioners



to receiue & burn  
all books which  
are contrary to  
the Six Articles,

according to  
their discretion.

The intention is  
to take away all  
books against  
the primacy of  
the Pope,  
because no one  
can write against  
this without  
touching some of  
the Six Articles.  
They punish all  
who have any  
learning, calling  
them heretics,

lest the iniquity  
of the clergy  
should be known.

No man who  
knows the  
Scriptures will  
marvel at this,  
*Iohn. iij.*

because he who  
does evil hates  
the light.

And since they  
have contrived to

into their custodie all suche bokes wherin is conteyned any clause or artycle repugnaunte to any of the Syx Artycles, / and *the* same bokes to burne and dystroye, as to the discretion of thre of them shalbe thoughte expedyent? Marke well what they purpose by this estatute. Are there any bokes which write agaynste the Popes prymacie /, but they also write agaynste some of the Syx Artycles? Their coloure is to take awaye all bookes which wryte agaynste the Syx Artycles /; but their very intende, purpose, and meaning is to take awaye all bookes, whiche conteyne any godly lernynge, that write agaynste *the* Byshop of Romes prymacy. Howe cruelly doo the byshops punyshe all them which pretende to haue lernynge, and specially in Godds Worde? Suche they call heretyques, and persecute with puttynge them to open shame /, with enprysonmente /, and, in conclusyon, with deathe most fearefull and paynefull. All this they doo to dyseorage all men from the studye of Gods Worde / fearinge leaste that, by suche studious braynes which learne Gods Worde and publyshe the same, their iniquyte shulde be made manyfest. What studye and paynes they take to kepe *the* light from the people! But no man, which knowethe *the* Scriptures, will meruell of this their polieye and crueltye. For Saynt Iohan declarethe their practyse playnely, sayenge: "He that doth euyll hateth the light" /; and why? because his workes, whiche be euill, shulde not be reprobued by the light. And, for asmuche as oure byshops countenaunce of lyuinge /, their greate possessions /, and lordely domynyons in them, agreeth with Godds Worde /, as deathe with lyffe /, God with the deuill /, light with darckenes /; therefore they hate *the* light which declarethe the same /, and studye to suppress the same by all craft and polieye. And, seinge they can so craftely iuggle, and haue suche frendshipe

and fauoure<sup>1</sup> to conuey /, [&] brynge to passe / that all bookes shall come into their handes vndre the coloure of the Syx Artycles /, it is to be feared that, shortely, they will, by lyke crafte, subtylte and frendshipe, procure the Byble in Englyshe to be taken from the layete /; & then we shalbe ledd in darckenes by our byshops and other blynde gydes, and not pastoures, at theyr pleasure and will /; whiche is the effecte of all theyr study, laboure, and purpose. Nowe, most vale-aunt Defender of Christ /, it appeareth playnely howe many myseryes we be wrapte in /, through the vngodly electyon of suche as be admytted to haue spirytuall cure and offyce to teache Godds Worde /; whiche not onely haue lytle lernynge /, but also they be enemyes to all men whiche can and doo preache Gods Worde sy[n]cerely and trewly, / because they lyue contrarye to the same /, as I haue before declared /. And this is the origynall grownde and cause of the abundaunce and increase of darckenes and of synne /; as also of the longe contynuaunce of popishe blyndnes whiche hath raigned in this realme so longe. Wherefore, yf the byshops, and other elected and appoynted to be shepherdes accordinge to theyr vocatyon and callinge /, be not fyrste knowen and well proued to haue suche knowleage & godly doctryne /, so that they can, & also doo, instantly & dyligently preache Gods Worde, whiche is the light expellinge all darckenes of synne /, then muste nedes synne encrease & abounde, without any restraynte or brydle. “For if the light whiche is amongst yow be darckenes /, howe muche shall the darckenes be!” Youre Grace and your cyuile power doo punnyshe synne /, when it is done and commytted /, accordinge to the iustyce of lawes /, as to your vocatyon & office of right belongethe to doo. But the office and dewtye of the pastor is to preache Goddes Worde /,

get such books  
into their hands,

they may also  
take the Bible  
from the laity,  
and then we shall  
be led in dark-  
ness by our own  
spiritual guides,

who have little  
learning,  
and are enemyes  
to such as preach  
God's Word.

This is the cause  
of the increase  
of sin.

If bishops and  
others do not  
preach the Word  
of God,

sin must increase,  
and abound in  
*Matt. vi.*  
the land.

The civil power  
punishes sin  
committed, as it  
ought to do;

but the pastor  
converts the  
sinner who is

<sup>1</sup> Orig. fauoure.

disposed to  
commit sin;

so that,  
through him,  
there is less sin,

the higher  
powers have less  
occasion to  
execute the  
justice of the law,  
and men's lives  
are preserved.

Wherefore it  
appears the good  
order of the  
realm depends  
upon the minis-  
ters of religion.

It behoves  
patrons to be  
very careful in  
the bestowal of  
their patronage.

If they present  
unfit pastors,  
such as do not  
feed the flock  
committed to  
them,  
*Ezech. xxxij.*

they consent to  
the death of souls,

wherby he shall conuert the hart of the synner /, whiche is willinge & dissposed to doo synne /, so that he shall not breake fourthe to doo synne in the acte /, which *the* eyuyle powre, for the example of other, by equitye and iustyce is bounde to punyshe. Therefore the dyligent executyon of the office of the pastoure shalbe the pryncipall meane and occasyon that lesse synne shalbe commytted; / and so the higher powers shall haue lesse occasyon to execute the extreame iustyce of lawes /, and, consequently, many mens lyues, whiche nowe for lacke of the knowlege of Godes Worde shuld be loste for commyttinge murder /, felonye /, and suche other offences, / shall then be preserued that they shall not commytte suche offences /, which the hygher powers, by the lawes of equitye & iustyce, be compelled to condempne and to punyshe with deathe. Wherefore, *the* godly tranquyllyte, reste, and peace of all this your realme, soueraygne Lorde /, and the good order of the same, hangeth and resteth moche vpon the godly and dyligent executyon of the office of pastors and of the spirituall shepherds, dewly called and admytted accordinge to Godes Worde. Therefore it behoueth the presenter of the clerke to a benefyce and cure of sowles, to be cyreumspect and well ware what clerke he doth present /; and that he haue good knowlege, experience, and proue of his clerke before he present hym. For, if a pastour doo not feade the flocke of Christe commytted to his charge /, the deathe of their sowles shalbe required of his handes. As the prophete Ezechiell sayeth in the .xxxij. chapi.: And if the patron willingly /, other for kyndred /, fauoure /, frendshippe /, seruice, or money /, present a clerke which he knoweth not to be so lerned in Gods Worde /, that he be able to instructe and teache the people commytted to his charge, bothe *with* the lawe of God and *withe* the Gospell /, every suche patron consenteth to

the deathe & dampnacion of the sowles commytted to the charge of suche vnlearned preste. And therfore suche a patron shall also be punyshed with lyke payne /; whiche is eternall /, as the Apostell sayeth: "Not onely they that doo euill /, but also they whiche consent therunto, shalbe punyshed with lyke payne."

What wyse man liuyng wolde hyer a shepherde to gouerne hys beastly & worldly shepe, which nother wolde nor coulde feade /, handle /, salue, nor ones see his shepe commytted to his charge? Suche a wyse shepherde wolde shortely make his masters profet come to lytle aduantage. Surely, a wyse man wolde chose no suche shepherde. And if he were deceyued through the perswasyon of some of his frendes /, yet, when he hathe proued that he hathe no connyng nor dyligence /, he will shortely dyscharge hym of his cure and seruice. Shall we be esteemed Christen men whiche haue more tender loue and affectyon to owre corruptyble profett /, than we haue to the honowre of God & the eternall wealthe of the immortall sowles of owre Christen bretheren /, whom Gode commaundeth [vs] to loue as owre selfe? Christ ded not commytt to Peter the cure and charge of his shepe, before he asked thryse of Peter whether he loued hym. As who shulde saye, I wolde not commytt my best beloued ioywell and treasure vnto the /, vnlesse thowe loue me hartely. I wolde wyshe that all gouernowres and rulers in this case wolde take example and folowe Christ, whiche, knowynge the good wyll of Peters harte /, yet as one ingnorante therof, ded demaunde this question of Peter before he ded commytt the cure of his floeke to hym /; therby to geue example & common doctryne to all his faythfull folowers, that they shulde haue suche tender and feruent loue towards the Christen sowles /, that they wolde not commytt the gouernaunce and cure of them to any man /, but vnto suche of whom they haue

and will be  
punished with  
eternal pain.

*Rom. i.*

What man  
would hire a  
shepherd who  
would not feed  
his sheep?

If a wise man  
were deceived  
by his friends'  
persuasion, yet  
he would soon  
discharge him  
from his service.

*Io. xxi.*

Christ asked  
Peter whether he  
loved Him, before  
He committed  
His sheep to  
his charge;

and patrons  
should follow  
this example.

He knew Peter's  
good will, but  
He asked the  
question to give  
example to all  
His faithful  
followers.

A pastor without  
knowledge is but  
a blind eye,

and the patron  
who chooses him  
deceives the souls  
of men.

An ignorant  
bishop cannot  
do his duty  
because he does  
not know the  
Scriptures.

Some are  
drunkards,  
players at un-  
thrifty games;  
without justice,  
or temperance.

By such idle and  
wicked ones  
Christ's inheri-  
tance is trodden  
under foot.

proue & sure knowlege /, that, aswell by their preach-  
inge & syncere teachinge of Gods Worde /, as also by  
their vertuose lyuinge consonante to *the* same Worde,  
they had vnfaynedly a faythfull hartie loue towardes  
Chrystes floeke. A blynde eye, which can not dyrecte  
and leade the bodye, is a blemyshe and a burden to the  
naturall bodye /, and noo commodyte. In lykewyse a  
man, chosen to be a spyrytuall pastour, which hathe  
not the knowlege and grace to preache the lawe and  
the Gospell /, is but a blynde eye, not able to dyrecte  
and leade the spyrytuall bodye. Wherefore, if any  
patron chose any suche ingnorante man to be a pas-  
toure /, a spirituall eye and light to leade the spirituall  
sowles /; he not onely deceyueth them, but also, as-  
moche as lyeth in hym, kyllethe the bodye / and dothe  
greate iniurye to Christes bloode. Now it maye please  
yowre Highnes to note and marke what myschef and  
inconuenyence folowe the electyon and admyssion of  
an ingnorante pastour.<sup>1</sup> Fyrste, if an ingnorante byshope  
in Gods Worde be admytted /, he can not execute his  
office because he knoweth not the Seryptures whiche  
teacheth hym what shulde pertyne to his owne office.  
And as the byshop is ingnorante in Godes Worde /, so  
he admytteth suche as be vnlearned in Gods Worde /;  
evyn suche as by noo possybylite can execute the office  
of their callinge; idle parsons /, vnhappy / dronck-  
erdes /, swerers /, common players at all vnthryfye  
games /, in whom there is no chastyte, / noo humylyte /,  
iustyce /, nor temperance. For a conclusion, / suche  
they admytte in whom there is noo holynes /, godly  
doctryne /, nor good example of lyuinge. To suche  
they commytte *the* healthe of sowles /, the floeke of  
Christe, dearely bought with his bloode /; by suche  
ydle and wicked harlottes the enheritaunce of Christe  
is troden vnder fote. All euyl condycions, maners,

<sup>1</sup> Orig. postour.

and doctrynes by them be tawght /; so that in the steade of Holy Scripture is crepte in the doctryne of lyes /, all superstycions /, dead & vayne ceremonyes /, and lycence to doo all kynde of synne. Some of the blynde ignorante prestes teache the people that God is honowred /, and soules releued of their paynes, through the rynginge of belles /, painting of postes /, and settinge vp tapers and candelles before the sayd postes /, whom the blynde prestes doo bothe sence & spryncke with holy water. An other sorte of blynde shauelings teache the people to gett heuen with fastynge /; this prescripte daye & that daye /, with trentalles and masses of scala celi /; with forbearinge of bodely workes & kepinge ydle holy dayes /. They preache muche holynes and Gods seruice to stande in their holy oyle /, holy creame /, holy water /, holy ashes /, hallowed bedes /, mumblynge of a nombre of psalmes in Laten /, keapinge of church ales, in the whiche with leappyng, / daunsynge /, and kyssynge, they maynteyne the profett of their churche (to the honoure of God, as they both saye and thyncke). And thus the blynde leadeth the blynde /, that both fall hedlonge into the lake of eternall brenninge fyre. What naturall harte is there whiche will not lamente the misery /, yea the dampnation, most certenly thretenede by Gods Worde vnto all ingnorante, and neglygent bysshoppes, and other spyrytuall shepherdes, which doo not dylygently execute theyr offyce and vocation? What honest louinge harte doth not bewayle the habundaunce of synne /, the longe myserable blyndnes, wherein this realme hath ben ledd and wrapped in through the yngnorance and neglygence of suche blynde guydes? But is there any Chrysten harte which can forbere contynuall syghinge and mornynge /, remembringe the multytude, yea, the infynyte nombre, of sowles (whiche without the greate mereye of God, passinge all his worckes) through ing-

Some of them teach that souls are relieved by the ringing of bells, painting of pillars, setting up candles;

by fasting on this or that day,

and keeping Holy Days. They say much holiness stands in holy oil, holy chrism, holy water, and such like, and in keeping church ales.

Thus the blind lead the blind, and both fall into the ditch.

Such things make all Christians mourn when they remember the huge number of souls which are utterly damned.



The country is  
overburdened  
with priests of  
one sort or  
another.

These idle  
parsons are no  
good,

but a harm to  
the State;  
they are robbers  
of the king's  
subjects, who are  
deprived of the  
alms of many in  
the hope that  
prayers avail  
for the dead.

Many are en-  
couraged to live  
wickedly by an  
ungodly trust in  
masses and  
dirges.

norance & negligence of suche blynde shepherdes /, be  
vtterly cast awaye & dampned? What good cyuyle  
harte wolke not, I saye, lament and bewaile the greate  
burden wherwith this your realme (gracyouse Lorde) is  
ouercharged through the greate multytude of chauntery  
prestes /, soule prestes /, chanons /, resydensaryes in  
chathedrall churches /, prebendaryes /, muncke pen-  
cyons /, morowe mas prestes /, vnlearned curattes /,  
prestes of gyldes and of fraternytees, or brotherhedes /,  
rydinge chaplaynes / and suche other ydle parsons /;  
whyche yf they be well noted /, and also what frute  
spryngethe of them, indyfferently valewed /, con-  
sydered /, and pondered, / it will appere manyfestly to  
all reasonable and godly wyttes /, that they do brynge  
noo maner commodyte, profett, or vtylyte, other spyrit-  
uall or temporall, to this your publycke wealthe. No /,  
no /! They be not onely no commodyte nor profett to  
the common wealthe /, but rather moche hynderance.  
And truly no lytle wasters /, spoylers /, and robbers /;  
and that of the most poore /, indygent, and neadye of  
youre louinge subiectes /, which be most craftely /,  
subtelly /, and vnrightuously depryued of the charyt-  
able succoure and almes of many symple, vnlearned  
innocentes /, through a vayne hope and false confyde-  
ence that theyr sowles shulde be releued and released  
of theyr paynes and tormentes dewe for theyr synnes /,  
when they be departed this worlde /, by the longe  
prayers of prestes. And (the more it is to be lamented)  
noo lytle nombre of your subiectes, through suche  
vngodly truste and confyidence in masses and dyryges  
to be songe and celebrated for them when they be  
dead /, be greatly encouraged to lyue both wickedly to-  
wardes God /, and also vnfrutefully towardes the  
worlde /; lytle remembrynge and estemyng their  
vocacion & callinge, wherin God hath appoynted them  
to walke /, and moche lesse the extreame necessitye of

their Christen bretheren. This vayne hope in the longe prayers of prestes (no doubt, graciouse Lorde) is a greate occasyon of moche pouerte amongst the poore and neady of this yowr realme. For the spedy remedy of this pouerte amongst your louinge subiectes /, and the vtter suppressyon of suche vayne hope in the prayers of prestes to be made for your subiectes when they be deade /, whiche is the greate cause of this myserable pouerte /, it may please your Magestye, of your accustomed goodnes, to call to your graciouse remembrance that all the people, of this your regyon, be subiect vnto yowr gracyouse power /, rule /, and dominion, as vnto their supreme hedd and gouernowre, dewly by God appointed to gouerne them onely durynge their naturall lyues /; but when it pleaseth God to take their sowles owt of this myserable worlde, / than yowr Grace is dyscharged of all gouernance /, cure, & charge ouer them /, as of suche which, after their death, doo not appertayne to yowr Grace /, nor be of your kynge-dome /; but onely of the kyngedome of God /, vnder his gouernance, prouisyon, and rule. Into the whiche kyngedome, nother your Grace nor noo other erthely prynce, maye lawfully vsurpe or take any rule, prouisyon, care or gouernance /, for the sowles entered therunto. Seinge that your Grace haue no auctoryte nor power ouer the sowles departed /, yow be not onely dyscharged to gouerne, to care, or to prouyde for them, beinge deade /; but moche rather to prouyde that they maye not be deceyued so vnder the coloure of longe prayre /, but that they may be taught sincerely Godds Worde, whyle they be lyuinge vnder your subiection, so that they maye beleue constantly and lyue godly /; and then, by Christes promesse, hell gates shall not prevaile ageinste them /: moche lesse they shall haue any neade of suche straunge succoure and helpe of men /, nothinge appointed nor tawght by Godds Worde,

The hope in the prayers of priests is a cause of poverty amongst the poor.

While the people live they are under the dominion of the king;

when they die, the king is discharged of his care over them.

No earthly prince may usurp authority over the dead.

The king must see that the people are not deceived; they must be taught,

and then the gates of hell shall not prevail against them.

When you treat  
for the reforma-  
tion of abuses,

reform all which  
have no strength  
in God's Word.

All lands and  
possessions taken  
from religious  
houses should be  
given to support  
common schools,

and to relieve the  
poor while they  
live under the  
king's subjection.

This would be  
better than to  
allow these  
possessions to be  
used under a  
pretence of re-  
lieving departed  
souls.

to be profitable or necessary for their sowles after their death. Wherefore, I mistruste not but that your Magestye, when you shall next intreate for the reformation of the enormytes & abuses sprongen vp in the Christen religion /, yow will godly reforme suche abuse and dissembled couetuousenes /, and certeynely beinge no godly remedy nor helpe for sowles departed, which hathe noo strengthe nor effycacy of Gods Worde /, which is the very trew fowndacion of all the Christen religion and helpe for sowles. And, in *the* meane season, I doo no lesse thynke, and also pray hartely to God, that your Magestye will provide and make ordinance /, that all suche landes and possessyons, where-vpon so many ydle hypocrytes and deceyuers be greate burdeyn & charge to your realme /, which hytherto haue lyued vngodly and vnprofytably /, maye, from henceforthe, be partly conuerted to the supportation and mayntenaunce of common scoles /, wherby errors crepte vp through ignorance maye be through knowlege repressed /, and godly lernynge and knowlege more plentuously planted and admynistred /; and partely that your poore louing subiectes maye be more mercyfully releued & succoured /, whyle they lyue vnder your subiection, charge, and gouernaunce. This godly dystribution (most prudent Soueraigne) of the landes and possessions, ordeyned and appoynted for the counforte, soccoure, and helpe of yowr poore louinge and lyuinge subiectes /, is moche more consonante and agreable to Godds Worde, and more certeyne dyscharge of your Graces conseyence, then to suffer the same possessyons to be vngodly caste awaye and consumed vnder suche false colowre and pretence to releue sowles departed /; of whom your Magestye haue nother cure nor charge /, nor can not assure to them, by Godds Worde, through suche longe prayers of prestes, relese of paynes after their deathe /, or any other ayde, coun-

forte, or succoure. For, with owt any doubt (gracyouse Lorde) yf suche hyred prayers had ben godly and necessary for the sowles departed /, other Christ or his Apostelles wolde haue taught it /, or, at the leaste, haue praysed or practysed it /; & not so manifestly reprobued & thretened it /, sayeng:—"Beware of them whiche deuoure wyddowes howses, vnder coloure of longe prayers /; theyr iudgment shalbe moche longer." In all the Newe Testament there is no meneyon made of any suche offyceer, nor offyce instytuted, nor appoynted, to praye for the deade. And yet all men, I thynke, will confesse that the trueth of Godes Worde was most syncerely set forth and preached in the tyme of Chryste & of his Apostles /; in whose tyme there was no suche craftye lernynge publyshed nor tawght by them /, nor longe tyme after. But then men stablysshed and grownded their religion and hope of healthe vpon Godds Worde /, whiche teacheth vs *that* who so beleueth is saued, and hathe no neade of longe, prystishe prayers /; and who so beleueth not /, shallbe condempned. Betwene these extreame contraries there is no meane /; as Saint Augustijn saieth. Wherefore I exhorte all them (whiche contrary to all Holy Scriptures) truste to the thyrde place, and there to haue release of paynes through *the* longe prayers of prestes; / that they wolde geue ouer suche fayned fantasye of men (subtylly ymagined only through insaciable couetuousenes of ambiciouse prestes, to gett mony therewith to mainteyne their vngodly lustes /, and to lyue ydly and delycately) and to truste rather to the sure and infallyble trewth of Godds Worde /, which, *withowt* doubte, is to repent and beleue /, and vtterly to forsake all synne /; and than constantly to trust to Goddes promesse of mercy. Here manifestly apperethe, soueraygne Lorde /, in what miserable blyndnes the most parte of this your realme haue longe tyme be[n]

If prayers for the dead had been necessary, Christ would have said so.

*Marc. xij.*

There is no mention of them in the New Testament.

The Apostles taught no such thing.

He who believes has no need of priests' prayers.

*Note here S. August. in his booke entytled Hypognosticon. fol. ix.*

Wherefore I exhorte all who believe in Purgatory to leave their vain fancy,

and trust to the infallible truth of God's Word.

All men must  
lament the  
miserable blind-  
ness of such  
shepherds.

I trust the  
punishment with  
which the world  
was threatened  
*Amos. viij.*

is past—a punish-  
ment of hunger  
and thirst for  
God's Word.

*Luce. i.*

It is dangerous  
to admit for  
ministers such  
as have studied  
popish laws ;

they will poison  
the flock  
and increase  
popish power.  
[\* leaf 22]

It is hoped all  
men will now see  
the evil of ad-  
mitting unlearned

and carnal priests  
to spiritual  
offices.

led /, yea, and almost drowned, through the longe custome vsed theryn. Who is it that *can* not lament (I saye) this deplorate & miserable sorte of blynde shepherdes? Be not they bowght with the same pryce wherwith we be bought, to be membres of one bodye, wherof Christ is heade? If we be membres of one bodye, certainly we can not then but taste and feale, not onely their euill /, but also the lamentable estate of al other caste away through them. Lorde, I truste the punysment is past wherwith thow haste threatened the worlde to be punished with hunger and thyrste ; not with hungre and thyrste of breade and drinke /, but for lacke of hearinge thy Worde. Yt is nowe tyme, Lorde, to shewe thyne accustomed goodnes & mercye /, for the whiche we doo dayly and hartely praye /, sayenge : "Through the tender mercy of God, wherwith he hathe vsyted vs /, geue light to vs which sytt in dareknes and in the shadowe of deathe /, to guyde our feate into the waye of peace." Also it is a daungerouse thinge to admitte one to be a spirituall pastoure, whose professyon and study all his youthe hathe ben in decrees and popishe lawes. For suche a study, for the most parte, ingendereth a popishe harte. If any suche be admitted to be a pastoure /, he shal not onely, other secretly in confessyon or by some other crafty meanes /, poyson his flocke with mans tradycions & popishe doctrine /, but also shall augment *the* popishe power /; for *the* abrogacion \*wherof yowr Grace and yowr honorable Councell haue taken greate paynes & travayle. Nowe, eftsones, I truste that all men, which reade this lytle boke, shall perceyue therby what inconuenyence & dampnable euill enseweth the vngodly presentacyon and admyssyon of the vulnered in Godds Worde /, and carnall prestes to spyrituall offices.<sup>2</sup>

<sup>1</sup> This page is transposed in the orig., and stands where the next one should be.

<sup>2</sup> Orig. officers.

And although such patrons haue lytle zeale and loue to the common and publike wealthe /, yet for the synguler and carnall loue which they beare to their clerkes (whom they addycete and bynde surely to eternall dampnacion /, if they geue them suche spyrituall offyces /, whiche they neyther can nor will execute and perfourme) or for the tender zeale and loue which they haue to the sowles so derely bought with Christes bloode /, they wyll, wyth all circumspection, proue theyr clerkes that they be not onely well lerned in Gods Worde /, but that they also haue taken greate paynes in preachynge the same /, and that they haue also lyued accordinge to their preachynge. Suche experyment and proue was commaunded to be made of weddowes /, before they were admytted to lyue vpon the charge of the congregacyon, as it appeareth in Tymothy. \* Muche more than euident and sure proue of pastours (whose offyce is soo necessarie) shulde be hade and made before they be admytted to their spyrituall offyce and charge. And, although the election of the byshop and of other spirituall pastors in enery poynte be hade and done accordinge as I haue before wryten /, yet (most dread soueraigne Lorde) I see two fowle deformytes and grete lamentable myschefes annexed to the vocacyon & offyce of byshops /, which, not reformed, will poyson and vtterly corrupte the godly vocacion and electyon of the sayd byshops. The one infection and pestylent poyson is there greate lordships and domynions, with the yerely prouentes of the same. Whiche hath so fasshyoned them in proude countenaunces and worldely behaoure /, that nowe they be moste lyke to heathen prynces, and moste vnlyke vnto Christe /, althoug[h]e they wolde be esteemed of all men to be his trewe successours /; yet poore Christ

Although patrons have little zeal,

it is hoped they will examine clerks, and so ascertain whether they are well learned.

i. *Ti. r.*  
[\* leaf 21, back] <sup>1</sup>

If bishops be properly elected,

yet there are two more evils belonging to them:—

1. Their great lordships, and the rents arising from them.

They live like heathen princes,

<sup>1</sup> This page from here is transposed; in the original it precedes the one just given.



but "Poor  
Christ" had not  
where to lay  
His head.  
They have  
castles,  
parks full of deer;  
fish-ponds,  
and other  
pleasures.

2. They have too  
many cures and  
too much worldly  
business.  
They manage  
their estates in  
all their details;

must hear testa-  
mentary causes,  
divorce suits,

and such other  
matters not  
belonging to their  
vocation.  
My lord is so  
occupied with  
these things that  
he cannot find  
time to study or  
to preach.

*Mat. v[i].*

*Act. vi.*

sayethe :—"The foxes haue hooles /, the byrdes of the  
ayre haue neastes /, but *the* sonne of man hathe not  
wherin to laye his head." But oure byshops haue  
gorgeouse & sumptuose buylded howses, maners, &  
castelles, pleasauntely set abowte with parekes, well  
replenished with deare /; warrens swarming full of  
conyes /, and fyshe pooles well stored with dyuerse  
kyndes of fyshes. And not onely these commodities  
and pleasures /, but also diuerse other pleasures. Howe  
this lordely and worldely byshoplike estate agreeth  
with Christes wordes /; I thinke a man can not reason-  
ably conyeecture or ymagen, by theyr countenaunce and  
lyuinge /, that they be Christes trewe disciples. The  
other myschefe and euill is, that they haue to many  
worldly cures and busenes. For to these maners and  
lordeshipes belonge many tenauntes /, for whose leases  
to be made, fynes and haryottes to be appointed and  
taken /, amercyamentes to be assessed, taxed, & also  
forgeuen and dispenced /, there be noo fewe sutes made  
to my lorde byshope /; also the hearinge of testa-  
mentforye causes /, dyuorsers /, causes of matrimonye /,  
of selaunders /, of leacherye, / adultery /, and pun-  
yshement of bawedrye /; and suche other bumme  
courte matters, wherof not one belong to his offyce &  
vocation appointed by Godds Worde. My Lorde  
Byshope is so occupyed & vnquyeted /, that he hathe  
noo leasure to studye nor to preache Gods Worde.  
But suche affayres and worldly busynes, nothing per-  
teynninge to his vocation, be very greate hynderance  
and lett to my Lorde Byshop, that he can not applye  
hym to exereyse his owne offyce. "For no man can  
serue two masters," sayeth Christ. The Apostles  
thought it not iuste and equall to prouide for the  
necessary lyuinge of the poore /, leauinge Godds Worde  
vntawght. But my Lorde Byshoppe, doinge these  
things, nothing perteynninge to his offyce /, thincketh

that he hathe exactly done his offyce. From these greate maners commeth yerely, greate rentes, pleasures, & profettes /; which, althowghe they be the good creatures of God /, yet thabundaunce of them (beinge where they be more impedymment than helpe) be a greate occasyon of corrupcion in the vser of them. And, peradventure, they wolde allure and intyse a byshops harte to truste in them and so corrupte hym /, as the Scripture sayeth :—"Blessed is the ryche, which is founde without blemyshe, & hathe not gone after golde, nor hoped in money and treasures /; where is there suche a one and we shall commende hym and call hym blessed /; for greate things dothe he amonge his people." And if my Lorde Bysshoppe shulde geue the superfluyte of his goodes to the poore (whose goodes iustely they be) as the prophete Ezay sayethe /, than my Lorde shulde lacke them to furnyshe his lordely countenaunce /; and so my Lorde shulde loose his lordely honoure and prayse of the worlde. Wherefore, as these superfluouse possessions be annexed to estates of bysshops, by mans vayne fantasye and not by Gods Worde /, so my Lorde Bysshoppe wyll other keape them to make hym more fryndes/, remembrynge that "ryches makethe many fryndes /, but the poore is forsaken of his neyghbowre"/; or denyse the expence of them contrary to Godes Worde /, other to make sure fryndes in the courte aboute the kyng, to obteyne more promociouns & benefices /, or in curiouse buyldinge /, sumptuouse and delycate fare /, well appareled seruauntes /, tyme decked horses, to ryde pompecusly lyke a lorde. Althowghe there were no auctorite to proue this /, yet the lordely countenaunce & fasshyon of byshops /, yea, their common exercyse and also practyse, can well proue and testyfye this playnely before the face of all men, which knoweth the lordelynes of bysshoppes. As the prophete Ezay sayethe :—

His great income might entice his heart to trust in it and so corrupt him.

"Blessed is the rich who is found without blemish, and has not gone after gold :

for he does great things among his people."

*Esa. ij.*

The bishops use their riches to make friends,

or to bribe those about the court ;

or else in building, fine living,

servants, horses, and riding like lords.

*Esa. ij.*

All which are  
opposed to the  
saying of the  
Apostle,  
*i. Ti. vi.*  
“When we have  
food and raiment  
let us be content.”

*Lu. xxiij.*

Peter tells bishops  
to feed the flock  
of God;

taking the over-  
sight willingly  
and with a godly  
mind.

But the proud  
countenance of  
our bishops is  
contrary to all  
this.

*Math. xij.*

And so long as  
this is so,

they cannot sin-  
cerely and truly  
*Rom. x.*  
preach.

*Joan. xx.<sup>1</sup>*

Christ was sent  
to preach, and He  
sent His disciples  
to do the same.

“The chaungynge of their countenaunce bewrayeth them /, yea they declare theyr owne synnes them selves as Sodomytes /, and hyed them not.” Doo not these thinges fayntely agree with the sayenge of theyr predecessour, Paule the Apostle, which sayeth :—“When we haue foode and raymente we muste be contented ?” Is not this lordely honoure dyrectely agaynste Chrystes wordes /, which sayethe :—“The kynges of nacyns raygne ouer them / and they that haue auctoryte ouer them are called graciose lordes. But yow shall not be so.” Also Peter speakethe to his trewe successoures sayenge :—“Feade yow Christes flocke as-muche as lyeth in yow /, takynge the ouersyght of them ; not as compelled therunto /, but wyllyngelye /, after a godly sorte /; nor for the desyer of fylthy luker /, but of a good mynde /; not as thoughe yowe were lordes ouer the paryshes /, but that yowe be an example to the flocke /, and that withe good will.” But owre lordely byshops estate, and proude countenance of lyuynge (as it is nowe vsed) is contrarye to Godes Worde /, as it appeareth by these wordes :—“But yow shall not be so.” And also by these sayengs :—“Not as thoughe yow werè lordes ouer the paryshes.” And Chryst sayethe :—“He that is not with me /, is agaynste me.” Wherefore, so longe as they raigne so lordely in the clergie, contrary to Godds Worde /, so longe be they agaynste God. And so longe as they be agaynste God /, they be not sente from God /, and then can they not preache trewly and syncerely his worde. “For howe can they preache excepte they be sente ?” sayeth Paul. Christe was sente to preache, as it appeareth. Marc. i., Luce. iij., and Ezaye. lxi. And Christe sayeth to all his trewe dysciples :—“As my Father sente me /, so I do sende yow.” And commaundeth also all his Apostles, & trewe successors of the Apostles, to

<sup>1</sup> Orig. ij.

preache the Gospell to the holle worlde, and not lordely to raigne in the clergie. Whom Paul teacheth to be as mynisters /, sayeng : “ Lett a man this wise esteame vs /, euyn as the mynisters of Christe and the stuardes of the secretes of God.” To preache the Gospell therfore (most gracyouse and prudente Lorde) is the trewe vocacyon and offyce of all godly byshops /, parsons /, vycars, and of other shepherdes /; and not to be embasadours to prynces, / nor to be iudges to here matters of contencion, / testamentarye causes /, dyuorses /, sclauanders, / bawdery /, and suche other. Your Grace hathe, of your laye fee, suffycient bothe in lerninge, and wysedome, and of good conseyence, to here and iudge suche causes and varyaunces /; remyttynge byshops to attende their offyce and vocacyon by God (and not by man) appoynted. And therfore they shulde not exerceyse any other offyce than God hathe appoynted to them. For “no man can serue two masters.” And if byshops and other pastoures wolde dyligently execute theyr vocacyon and offyce /, moche fewer of these matters of contencion shalbe in vre and experience, other to be harde or iudged. Seinge the Scriptures commaundeth so earnestly euery man to walke as he is called, many Christen men meruell gretly why the byshops desyre and procure so greedely to exerceyse the offyce perteyninge to an other vocacyon /, and to leue their vocacyon and offyce (appoynted by God to them to be exerceysed) not executed nor performed and done. Verely bycause they loue the glorie of men / more then the glorie of God. And surely euen as Cayphas and Annas, beinge byshops, and exerceysynge the offyce of seculer and temporall iudges, ded iudge Christ to be crucified /, so our byshops, so longe as they, contrarye to their callynge, doo exerceyse the offyce of temporall iudges /, so longe shall they persecute Christe and his

*i. Cor. iiij.*

To preach the gospel is the vocation of all bishops and parsons, and not to be ambassadors or judges.

There are plenty of lawyers, learned and wise enough to hear and judge such causes, leaving bishops to attend to their own duties.

*Mat. vi.*

Men marvel why bishops strive after other offices, and leave their own vocation unperformed.

*Ioan. xii.<sup>1</sup>*

Verily it is because they love the praise of men more than the praise of God.

<sup>1</sup> Orig. ix.

There is business  
enough to em-  
ploy them in their  
own office.

Sin reigns  
everywhere

Costly apparell  
and change of  
fashions have  
made men who  
once could main-  
tain 20 or 30  
yeomen,

and comfort  
many poor,  
now scarce  
able to maintain  
their own house-  
holds.

These two things,  
costly apparell  
and varying  
fashions,  
especially of  
the women,  
are the chief  
cause of this  
altered state of  
things.

Men are com-  
pelled to sell their  
lands,

or get in debt.

They have to  
burden their lands  
with provision  
for children who  
should have been  
provided for  
during life.

membres /, and studye to suppress his worde /, and not to preache the same. Haue not they busynes suffeycent, wherwith to occupye them in their owne offyce? If they wolde loke well therunto /, doo not they see on euery syde detestable synne raigne through-owt all this your realme? Is there not suche excesse and costelynes of apparell /, bycause of dyuersyte and chaunge of fasshyons, that scarce a worshipfull mans landes, which in tymes paste was wonte to fynde and maynteyne twenty or thirty tall yowemen /, a good plentyfull howsholde for the releyfe and counforte of many poore and neadye /; and the same nowe is not suffeycent and able to maynteyne the heyre of the same landes /, his wiffe /, her gentle woman or mayde /, two yowmen /, and one lackey? The pryncypall cause herof is their costly apparell /, and specially their manyfolde and dyuerse chaunges of fasshyons whiche the man, and specially the woman, muste weare vpon bothe headde and bodye. Somtyme cappe /, somtyme hooode /; nowe the Frenshe fasshyon /, nowe the Spanyshe fasshyon /; than the Italyan fasshyon /, and then the Myllen fasshyon /; so that there is nco ende of consumynge of substaunce, and that vaynely, and all to please the prowde folyshe man and womens fantasye. Hereof spryngethe great myserye and neade. The fathers consumynge theyr goodes in vayne / pryde /, and wanton lustes (called vpon by yowr Grace to serue yowr Magestye for the defence of this yowr realme) haue not to doo their dewtye /; wherby they be compelled to sell theyr landes /, or els to burdeyne their fryndes /, or els to daunger them selfe in dette to many. Hereof rysethe it that the father is compelled to declare his will vpon hys landes to be executed after his deathe (when he can not occupye the same hym selfe) for the aduancement and helpe of his children, and the payment of his dettes /, whom easely he myght in his lyffe

haue aduaunced, holpen, and dyscharged /, yf suche  
 ryotouse expenses had ben auoyded. The prophete  
 Osee sayethe :—" There is noo trewethe /, no mereye /, *Ose. iiij.*  
 no knowleage of God in earthe /; cursynge /, lyenge /  
 murdre, thefte /, adulterye, hathe broken in" /; and yet  
 doo owre shepherdes holde theyr peace. What com-  
 messacyon /, dronkenes /, detestable swearinge by all  
 the partes of Christes bodye (and yet callynge them in  
 scorne "huntinge othes") extoreyon /, pryde /, couet-  
 uousenes /, and suche other detestable vyce, raigne in  
 this yowr realme /; agaynste the whiche owre byshops,  
 and other pastoures, shulde contynnally crye owt /, as  
 the Prophete sayethe :—" Crye nowe as lowed as thow  
 canste /, leaue not of /, lyfte vp thy voyce lyke a trom-  
 pett /, and shewe my people their offences, and the  
 howse of Iacob their synnes." But, alas ! they be be-  
 come bothe blynde and dome /, as the Prophete say-  
 ethe :—" His watchmen are all blynde ; they haue all  
 together noo vnderstandinge /, they are all dome dogges,  
 not able to barcke /; they are slepye /, folyshe are  
 they, and lye snortinge /. They are shameles dogges  
 that be neuer satysfied. The shepherdes also in lyke  
 maner haue no vnderstandinge /; but euery man turn-  
 ethe his owne waye /, euery one after his owne couet-  
 nousenes, *with* all his powre." What is the cause that  
 they doo not execute this their offyce ? Other bycause  
 they can not /, or bycause they haue someche worldely  
 busynes that they will not, apply them selves to per-  
 fourme bothe. Or els they be afrayed to speake the  
 trwethe /, lest they shulde dysplease men. Whom  
 Paul reproueth sayenge : " If I shulde please men, I  
 shulde not be the seruaunte of Christe." Also the  
 Prophete sayethe :—" God breakethe the bones of them  
 whiche studye to please men /; they be confounded /,

Drunkenness,  
 swearing by  
 Christ's Body,  
 "hunting oaths,"

pride, and vice  
 reign in the  
 realm,

against which  
 bishops and  
 pastors should  
 cry aloud and  
*Esa. lviii.*<sup>1</sup>  
 spare not.

But, alas ! they  
 are blind and  
 dumb,

*Esaie lvi.*<sup>2</sup>

and shameless.

Why don't the  
 bishops execute  
 their office ?

*Gal. i.*

*Psal. liij.*<sup>3</sup>

<sup>1</sup> Orig. v.

<sup>2</sup> Orig. lxvi.

<sup>3</sup> 53rd in A. Version.



They love their possessions ;

they will not displease men ;

they will maintain their pride, and will continue in it ;

*Esa. [lx]vj.*

and so long as they continue in wealth and honour they will not do their duty, but rather persecute the Bible which declares what their duty is.

When the Pope was first endowed with great possessions, a voice was heard—  
“ Now poison is cast into the Church of God.”

So long as honour and wealth are annexed to bishoprics,

because the Lorde dispyseth them.” Notwithstandinge, owr byshops loue so well their greate domynions, whereby they maynteyne their lordely honoure /, that they will not dysplease men with preachynge the treuth /, lest they shulde then loose their greate possessyons /; and, consequently, their lordely glorie. But surely as long as they possesse theyr greate domynions /, so long they wyll contynewe and maynteyne their pryde. And so long as they contynewe in pryde /, so long they shall not receyue the Holy Ghoste /, whiche shall teach them to speake the treuthe. “ For vpon whom shall my Sprete reaste ” (sayeth the Prophete Esaye) “ but vpon the meake and lowely /, and vpon hym which feareth the my sayengs.” Also the Prophete sayeth : “ God resysteth the prowde /, and vnto the meake and lowely he geueth his grace.” Wherefore, so long as the byshops contynewe in this worldely wealthe and honowre /, so long will they neuer do their dewtye and offyce /; but rather persecute the Worde of God whiche declareth and sheweth what is their offyce and their dewtye. And so long as they do not exercise their offyce and vocatyon /, but doo persecute the Worde and suche as syncrely preache the same /, so long shall synne increase. “ For if the eye be wicked /, all the body shalbe full of dareknes.” For euen as at suche tyme when the Byshoppe of Rome was fyrste endowed with greate possessyons /, a voyce was harde /, seyinge :—“ Nowe venome and poyson is caste and shed forthe into the churche of God.” In lykewyse, no doubt, most godly Gouvernoure /, semblable voyce and sayenge maye be veryfyed in and vpon all the churche of Englande /, sythen yowr byshops were endowed with so greate possessyons and lordely domynions. No doubt, gracyous Lorde /, so long as grete lordely domynions /, worldely honours and wealthe /, be anexed and knyt to the vocacyon and

offices of byshops and other pastours /, these myscheues & inconueniences shall euer ensue & folowe. Fyrste the moste proude and ambycouse /, the moste couetouse and wycked, / which other by money, frendshyp, or flattery, can obtayne the benefyce /, wyll laboure with all study and polycye to gett the benefice, / only for the worldely honoure, and not for the zeale and loue which he shulde haue to enstructe and teache the people commytted to his cure and echarge. And for the profett which belongethe and apperteyneth to the same benefyce /, they wyll dyssemble humylte and despeceyon of all worldely profettes and pleasures /, so colorablye and subtelly /, that yt shall be very harde for youre Magestye, or any other hauynge aucthoryte, to geue benefyces, to perceyue them. And when they haue obteyned the benefyce /, than euery Christen man shall well perceyue that he hathe not entered in by the dore ; that is, for the zeale and loue, to doo and exeunte the offyce /, but hathe clymmed vp and assended by a nother waye ; / that ys, for the luker and honoure annexed to the offyce. And than certenly, whosoeuer assendeth and entereth in by a nother waye /, can not be but a thefe /, by daye and by nyght ; / whose study and laboure muste be to steale /, kyll /, and to destroy. As Christe (whose wordes muste euer be true) sayeth : —“The thefe commeth not but to steale, / to kyll /, and to destroye.” So that, so longe as so moche worldely profett and honoure belongethe to the benefyce, so longe wyll he that, for wante and lacke of lernynge can not doo the offyce /, and also the moste couetouse and proude, / wyll laboure to haue the offyce /, whereby the people commytted to his cure /, shall not onely be vntawght<sup>1</sup> /, and not lerned in Gods Worde /, but also all they which can preache and teache Godds Worde and loue the same, / by suche

these mischiefs  
will follow.

The proudest  
will seek the  
benefice for its  
honours,

and not to teach  
the people ;

he will feign  
humility, and  
seem to despise  
all worldly profits  
and pleasures.

But when he has  
obtained it every  
Christian will  
perceiue he has  
not entered in  
by the door,

and is therefore  
only a thief and  
a robber,  
whose study  
must be to steal,  
kill, and destroy.

*Ioan. x.*

The people will  
be untaught,  
and those who  
would teach

<sup>1</sup> Orig. vntawgth.

will be persecuted  
and tormented.

It is easier to  
gather grapes of  
thorns than of  
such greedy  
thieves to have  
any Christian  
religion.

Seeing all  
these things,

the king is

bound to take  
away from  
bishops and other  
spirituall minis-  
ters all their  
superfluous pos-  
sessions and  
worldly cures ;

and, this done,  
to appoint such  
as can preach and  
have preached ;

and to remove all  
such as will not.

The poison  
being removed,  
faith shall in-  
crease and sin  
decrease ;

a worldely wolfe /, shall be extremely persecuted and tormented. For he can not but steale /, kyll /, and destroye /, and vtterly abhore /, and hate the godly /, as Christe sayethe :—" Yf you were of the worlde /, the worlde wolde loue his owne. But because you be not of the worlde /, but I haue chosen you from the worlde /, therfore the worlde dothe hate you." No doubt a man shall moche rather vpon thornes gather grapes /, and vpon brambles and bryres gather fygges, / than of soche gredy theues to haue any Chrysten relygyon, other setforthe /, preached, / or stablyshed. Wherefore (moste redoubted Prynce) seinge that theyr greate possessyous /, ryches /, worldely offyces /, cures /, and busynes /, be the impedymment and let that they do not execute theyr vocaeyon and offyce /, whiche is so godly, profytable, and necessarye for this yowr common wealthe /; yowe beinge ovr soueraigne Lorde and Kynge (whom God hathe called to gouerne this yowr realme /, and to redresse the enormytyes and abuses of the same), by all iustyce and equitye are bounden to take away from byshoppes and other spirytuall shepherdes suche superfluyte of possessyons, and ryches, and other seculer cures, busynes, and worldely offyces /, whiche be the cause of moche synne in them /: and no lesse occasyon whereby they be letted to execute their offyce /, to the greate losse and hynderance of moche faythe, vertue, and goodnes /, which myght be admynistred to your subiectes /, through the trew preachyng of Godes Worde. And that done /, than circumspectly to take heade that none be admytted to be pastoures, / but suche as can preache, and haue preached sincerely Godes Worde. And all suche as will not /, to remoue them from theyr cures. This godly ordre obserued in the electyon of spirituall pastoures /, and the pestylent poyson moued and taken away from theyr vocatyon /, faithe shall increase /, and synne shall decrease /; trewe

obedience shall be obserued wyth all humylite, to your  
 Magestye and to the hygher powers  
 by your Grace appoynted in office.

Cyuite quyettes, reste, and pea-  
 ce shall be stablyshed /, God shal

be feared, honoured, and lo-

ned /, whiche is theffec-

te of all Chri-

sten lyuin-

ge.

(  )

..

peace shall be  
 established, and  
 God shall be  
 honoured.

**O** Lorde, saue our moste soueraygne Lorde, Kynge  
 Henry the Eyght /; and graunte that he may ones  
 throughly feale and perceyue what myserable calamyte,  
 sorowe, & wretchednes we suffer now in these dayes a  
 brode in the cowntre /, by these vnlernd /, popyshe /,  
 and moste cruell tyrauntes /, euen the very enemyes of  
 Chrystes crosse /; whose payne shall be withowt ende /,  
 whan we shall lyue in ioye for euer. Graunte yet  
 ones agayne, I say, goode Lorde, and moste mercyfull  
 Father, through thy Sone Ihesus Christe /, that whan  
 his Grace shall knowe and perceyue (by thy gyfte &  
 goodnes) theyr most detestable wayes in mysusynge thy  
 heretage /, that he wyll earnestly go a boutte to se a  
 redresse a monge them /; and to the penytent and con-  
 tryte in harte to shewe his accustomed goodnes /, and  
 to the other his instyce /, accordinge to Saynt Paules  
 doctryne /, and his Graces lawes.

O Lord, save  
 the king;  
 may he once feel  
 what we suffer  
 from these  
 tyrants.

Grant that when  
 he knows their  
 wayes he may  
 redress them.

And, moste dreade Soueraygne (with all humylite and  
 humblenes of harte), I beseche your Grace / (accordinge  
 to your accustomed goodnes), to take this my rude


I beseech your  
 Grace to accept  
 my supplication

as a fruit of my  
obedience,

and not of malice  
to any spiritual  
shepherd.

supplyeaeyon to the beste /, as a frute of my obedy-  
ence /, wheryn I haue not dyssembled /, but haue  
opened fully vnto your Grace the grounde and very  
bottome of my hart; / not of any grudge, euyl wyll, or  
malyce that I beare to any spirytuall shepherde (God I  
take to recorde), but onely for the glory  
of God /, the honoure of your Gra  
ce /, and the wealthe and profett  
of your moste naturall  
and louinge  
subiec-  
tes.  
. . .

F I N I S.

¶ Enprynted in the yeaere of our  
Lorde .M. CCCCC. xliiij.  
in the moneth of  
Decembre.  
(  )  
. . .

# A Supplica=

tion of the Poore

Commons.

¶ Proverbes .xxi. Chapiter.

¶ Who so stoppeth his care at  
the crynge of the poore, he shall  
crye hym selfe, and shall not  
be heard.





¶ To the most victorious  
 Prynce Henry the viii. by the Grace of God  
 Kyng of Englande, Fraunce, & Ireland ;  
 Defender of the Fayth, and Supreme  
 Head of the Church of England,  
 and Ireland, immediatly next  
 vnto God : hys humble and  
 most faythfull Subiectes  
 of the Realme of En-  
 gland, wyshe lyfe  
 euerlastyng.

**P**Ituously complaineth the pore commons of this  
 your Maiesties realme, greatly lamentyng their  
 owne miserable pouertie ; and yet muche more  
 the most lamentable and more then wretched  
 estate of their chyldren and posterite. Whose myserie,  
 forsene and throughly considered, is and ought of very  
 nature, to be more dolorous and sorowful vnto euery  
 naturall hert then that which we our selues feale and  
 sustayne. Not many yeres tofore, your Highnes poore  
 subiectes, the lame, and impotente creatures of this  
 realme, presented your Highnes with a piteful and  
 lamentable complaint, imputyng the head and chiefe  
 cause of their penury and lacke of reliefe, vnto the  
 great & infinite nombre of valiant and sturdy beggars  
 which had, by their subtyll and crafty demaner in  
 begging, gotten into their handes more then the third

The commons  
 complain of their  
 miserable  
 condition,  
 especially of their  
 extreme poverty.

Some years ago  
 the poor, lame,  
 and impotent  
 presented a  
 petition  
 against valiant  
 and sturdy  
 beggars,

who had got into  
 their hands more  
 than a third of

the yearly  
revenues.

Your Majesty  
weeded out the

monks and nuns,  
who, under the  
disguise of  
contempt of  
this world, wal-  
lowed in riches;

and removed  
many gilded  
beggars, whose  
holiness was held  
in such esteem  
that we  
reverenced them  
as gods.

When they were  
abolished, like  
children,

we fell into an  
uproar,  
and, forgetting our  
obedience to the  
king, we behaved  
as the Ephesians  
did to S. Paul,

and the Jews to  
Stephen, when he  
said God dwelt  
not in temples  
made with hands.

part of the yearly reuenewse and possessions of this  
your Highnes realme. Wher vpon (as it semed) your  
Hyghnes (sekyng a redresse and reformation of thys  
greate and intollerable enormitie,—as a merciful father  
ouer this your natural country; moued wyth pitie to-  
wardes the miserable and pittiful nombre of blind,  
lane, lazar, & other the impotent creatures of this your  
realme) hath, wyth most earnest diligence, supplanted,  
and, as it were, weeded out, a greate nombre of valiaunt  
and sturlye monckes, fryers, chanons, heremites, and  
nunnes. Which disguised ypocrites, vnder the name  
of the contempt of this world, wallowed in the sea in  
the worldes wealth. And to the entent your louing &  
obedient subiectes might the better be able to releue  
the neadie & impotent creatures, you toke from them  
the greate nombre of gilded beggars, whose holines was  
so fast roted in the hertes of vs your pore commons,  
through the false dilusions of the forsayd sturdy &  
valiant beggars, that we wold not stick to go an .C.  
myles on our bare fete to seke one of them, that we  
might not only bestow our almes vpon them, but also  
do them reuerence and honour none other wise then if  
they had bene very gods. Yea, when your Hyghnes  
had ordeyned that al these forsayd beggars shulde be  
vtterly abolished, neuer to deceyue vs of our almes anye  
more, we, like men alwaies brought vp in folish super-  
sticion of these false Phariseis & flatteryng hypocrites,  
knewe not the obedience that we owe to you, our  
natural and most rightful Prince, but in-continent fel  
in an vprore cryng, “Our holi dayes, abbayes & pyl-  
grimages!” None o[t]her wise than the Ephesians  
dyd agaynst the elect vessell of God, Sancte Paule,  
whan he sayd, “They are not godes, which be made  
with handes,” and as the Iewse did against holy Steuen,  
whan he sayd that “God dwelleth not in an house  
made with mans hand.” Yea, had not God wrought

on your parte, in apeasing that sturdy thronge, this realme had, euen then, ben like to haue bene vtterly decayed. For euen those whome your Highnes had called to-gither to assiste you in that dangerous tyme, were (for the moste parte) so bente to the opinion of the other, that many of them woulde not stike to say, "When we shal come to the battaile,—we know what we haue to do." But nowe (the Lorde be thanked therfore) that your Highnes hath finished that your godly purpose, without bloudshede of your poore commones, and that the Worde of God hath ben so set furth & taught by your command[m]ent, that euery man that lusteth may therin learne his duitie and office ; we are fully perswaded, that all such as resiste the pours, whome God hathe ordeyned and appoynted to rule & gouerne the multitude of thys worlde, do not resyste man, but God. Be you certayne therfore (most graciouse Prince) that we (your most obedient subiectes) walkyng in the fear of the Lord, wyl not from hense forth (so long as the knowledge of Godes Worde shall reigne amongeste vs) attempt any such so diuillishe enterprise, as to rebel agaynst your Highnesse, our most natural Souerayne and Leage Lorde ; either for our forfathers popyshe tradicions, or other oure owne fantastical dreams ; not withstandyng that the remenaunt of the sturdy beggers (not yet weeded out) do daylye, in theyr writynges, counsels, and preachynges, stere vs thereunto. For what meane they in their sermons when they lament the greate discord and myserable estate of this our tyme, wishyng that all thyng were nowe as it was .xx. yeares since, but that they woulde haue a Pope, pardons, lightyng of candels to images, knockyng and knelyng to them, with runnyng hither and thither on pilgremage ; besides the infinit number of purgatory horseleeches, on whom the vengeaunce of God is so manifestly declared for their beastly buggery,

But you finished  
your purpose  
without blood-  
shed of the  
commons,

and now we are  
convinced that to  
resist the powers  
is to resist God :

and, so long as we  
are taught by  
God's word,  
will never rebel  
again,

though we be  
tempted thereto  
by the beggars  
not yet weeded  
out.

They tell us that vice has prevailed since we had the Scriptures in English,

but their aim is to make us abhor the Bible.

They would have us as blind as we were when we would have fought against our king, for the maintaining of their popish traditions.

They have procured a law that none shall have the Bible in his house, unless he can spend £10 a year, but they only wish to furnish men's souls by withholding spiritual food.

Are the rich only in possession of souls? Christ said the Gospel was preached to the poor, and the Gospel, which they would shut

that the very places where thei dwelt, ar not thought worthy to be the dwellinges of men, but the caues of bruit bestes and venemous wormes? Thei tell vs what vice, vncharitablenes, lacke of merey, diuercitie of opinions, and other lyke enormites, haue raigned euer sence men had the Scripture in Englyshe. And what is thys other then to cause mens consciens to abhorre the same, as the onely cause and originall of all thys? Thei say that it sufficeth a laye man to beleue as thei teach, and not to meddle with the enterpretation of the Scriptures. And what meaneth that, but that thei would haue vs so blynd agayn, as we were when we would haue fought agaynst oure naturall Prynce, for the mayntenaunce of their popyshe traditions and purgatory patrimony? Thei cannot abyde this name, "the Word of God;" but thei wold haue the Scripture called the commaundement of God. And what meaneth this, but that thei are the same enemyes of God, whom that two edged sword shall destroy? Finally, thei haue procured a lawe, that none shal so hardy haue the Scripture in his house, onlesse he maye spend x. pound by yere. And what meaneth this, but that they would famysh the soules of the residue, witholdyng theyr food from them? We appeale to your Highnes iudgement in this behalfe, whither this lawe be indifferent or not. If none should be alowed meat in your Highnes house, but suche as were clothed in veluet, with chaines of gold about theyr neckes, what seruantes wold your Maiestie haue shortly? What sternelynges would your seruantes be aboue all other! For no man within your realme may refuse to do your Grace seruyce. Hath God put immortall soules in none other but in such as be possessioners of this world? Did not Chryst send word to Ihon the Baptist that the pore receyued the Gospell? And the Gospell that thei shutte vp from vs, was it not the writynges of poore fysher men and

symple creatures, euen taken for the dregges of the worlde? Were not the setters furthe of it and the prophetes also, persecuted, tormented, and slayne? And why do these men disable them for readers of the Scriptures, that are not indued with the possessions of this worlde? Vndoutely (most gracious Souerayn) because they are the very same that shut vp the kyngdome of God before men; thei enter not them selues, nother suffre thei them to entre that wolde. They are lyke to a curre dogge lyng in a cocke of haye. For he wyll eate none of the heye hym selfe, nother suffer any other beast that commeth to eate therof. But some wyl peraduenture say, they were not all sturdy beggers that were in the Parlament when this lawe was stablished. For many of them, and the most parte were secular men, and not of suche habilitie that this lawe would permyt them to haue the Scripture in their houses. Wherefore, this lawe is in-different, and taketh not the Worde of God from vs; but we wyth oure ful consent haue committed it to them, in the sayde lawe lymytted. Where vnto we aunswer, that, if we haue geuen it ouer from vs to the possessioners of this worlde, we may well be lykened to the Gedarites, Marke v., which desired Christ to departe from theyr country, and the lurking night birdes, which can not abyde the bryghte beames of the son. We may boldly affirme that what man soeuer doth wyttyngly and willingly forsake the knowledge of the lyuely Worde of God (the foode of our solles, and lyghte of oure footesteppes,) is none of the flock of Christ, forasmuch as his shepe heare his voyce, & reioyce in the same. Did thei that toke their names of any philosopher, shut vp theyr masters doctrine from them selfe? Did thei not thynke them selues vnworthy to be named after their masters, vnlesse thei knewe their preceptes and rules? Did not the monkes, friers, and other the supersticious religious, employe all theyr

up, was written by poor fishermen.

Those who preached it were persecuted and slain.

These men are like the dog in the manger.

But many who made this law were secular men, and not rich enough to benefit by it.

The law is indifferent.

We answer, If we gave it away from ourselves to the possessors of this world, we are like the Gadarenes.

We boldly affirm that whosoever forsakes God's word is none of His.

Those who took the name of any Philosopher, studied his teaching, and thought themselves unworthy of him unless they knew his precepts; and the monks



following this example, study to obtain a knowledge of their statutes.

And shall we exclude ourselves from a knowledge of Christ's laws which we must follow, on pain of damnation?

If we have rejected God's offer, when He used your Highness to publish His word, in which we may learn His love towards us;

let us repent most humbly,

and beseech Him to forget our obstinacy.

Don't let our enemies say the

studye to knowe their rules and statutes? Do not the Coelginers at this daye set the boke of theyr statutes at libertie, streightlye commaundying eche felowe vnder payne of punishement to employ them, to haue the through knowledge of the same? And shold we glory to be the flocke of Chryst, and to be called of him Christians, when we do willyngly and wittingly exclude our selfe from the knowlege of the rule which he hathe commaunded vs to folowe, on payne of damnation of oure soules? Would your Hyghnes thynke that man were willyng to do your commaundement, that would not diligently reade ouer your Highnes letters sent from you to certifie hym of youre wyll and pleasure in hys office? And what other thyng is the whole Scripture then the declar[at]ion of the wyl of God? Wer it lykely therfore, that we, excludyng our selues from the knowledge therof, shold be willyng to do his wyl? If we haue therfore reiected this merciful profer of our moost mercifull Father, when he vsed youre Hyghnes, as hys instrumente, to publyshe and set forthe hys moost lyuelye Worde, wherein is declared the inestimable loue that he beare towards vs, in that he gaue hys onely Sonne to be an acceptable sacrifice for oure synnes; and the vnspekable mercy which caused him to accept vs as iust, euen for his Sonnes sake, without our workes or deseruinges; let vs now humbly fal downe prostrate before his Maiestye, wyth perfecte repentance of this, the contempte of his mercifull gyfte; moost humbly beseking hym, of his infynite goodnes, tenderly to beholde the doloures of our hertes, for that we neglected so mercifull a profer; and to forget oure obstinacie ther in, geuyng your Hyghnes suche desire of oure saluation, that you wyll as fauorably restore vnto vs the Scripture in oure English tonge, as you dyd at the fyrst translation thereof set it abrode. Let not the aduersaries take occasion

to say, the Bible was of a traytours settinge forth, and not of your Hyghnes owne doynge. For so they reporte, that Thomas Cromwell, late Earle of Essex, was the chyfe doer, and not youre Hyghnes, but as led by him. All thys thei do to withdraw the mindes of vs (your Hyghnesses subiectes) from the readyng and study therof. Which thyng doth easely appere by the diligence they shewe in settinge furth and execution of your Hyghnes proclamations and iniunctions consernyng the same. For when youre Highnes gaue commaundement that thei shoulde se that there were in every parysh churche, within thys your Highnes realme, one Byble at the least set at libertie, so that every man myght frely come to it, and read therein, suche thynges as should be for his consolation, manye of this wicked generation, as well preystes as other their faythful adherentes, wuld pluck it other into the quyre, other elles into som pue, where pore men durst not presume to come. Yea, ther is no smale numbere of churches that hath no Byble at all. And yet not suffised with the withholdinge of it from the pore of their owne parishes, they neuer rested tyl they had a commaundement from your Highnes, that no man, of what degree so euer he wer, should read the Bible in the tyme of Goddes service (as they call it); as though the hearyng of theyr Latin lyes, and coniuryng of water and salte, were rather the service of God, then the study of his most Holy Worde, the onely foode of our soules, and lyght of our fote steppes; wythout whiche no man can walke vpryghtly in perfect lyfe, worthy our name and profession.

This was theyr diligence in settinge forth the Byble at your Hyghnesse commaundement. But when your Highnesse had diuised a proclamation for the burnynge of certen translations of the Newe Testament, they were so bold to burne the whole Bibles, because

Bible was set forth by the traitor Thomas Cromwell, and not by your Highness, except as led by him.

Your proclamation commanded that a Bible should be placed in every church throughout the realm, so that every man might read it, but many wished to put it into the choir, or into a pew where the poor man dare not come;

and they never rested till it was decreed that no man should read it during God's service, as they call it.

When your Highness gaue orders for burning certain translations of the New Testament,

they burnt the  
whole Bible  
because the same  
men translated it.

See how they play  
bo-peep with your  
Highness's com-  
mands, suppress-  
ing, where they  
dare, what you  
have allowed.

They wished the  
Bible called in,  
and promised a  
new translation  
in seven years.

In this they were  
like the criminal  
who saved his life

by promising to  
teach an ass to  
dance in 14 years.

They trusted that  
in that time your  
Highness would  
be dead, or the  
Bible forgotten,

they were of those mens translations. And yf your Hyghnesse woulde enquire of them whoe toke the paynes in translatinge the Great Byble that your Highnes hath authorised, we thynke they coulde not, for verry shame, denie, but, euen agaynste theyr wylles, graunt, that those poore men, whose paines & greate trouaile they haue rewarded with fire and banishment, were the doers ther of. See, grationse Prince, how they play bopipe with your Highnes commaundementes, suppressinge, in al that they dare, the thyng that youre Highnesse hath authorised; euen as it were men that loked for a faire daye, which we trust, in the Lorde Iesu, they shall neuer see. As we herd say, they profered your Highnesse, that if it wolde please you to call in the Bible agayne (for as much as it was not faithfully translated in al partes) they wold ouer see it, and with in .vii. yeres set it forth agayne. A wiles; we think they haue red the story of a certen man, who, beynge condemned to die, profered that, if he might haue his life, he would doo his prince such a pleasure as neuer man dyd, for hee woulde, wythin the space of .xiii. yeres, teach him an ase to daunce. Where vpon he had his lyfe graunted him, vpon condition that yf he dyd not performe his promessed enterprise, that then he shoulde neuer the lesse suffer deathe. Thys done, he was demaunded of one of his familiers, why he was so madde to take vpon him such an enterprise, so farre beyonde all reason and possibilytie? He answered, “my frend, hold the content; I haue wrought wysly, for wyth in these xiii. yeaes, other the kynge, I, or the asse, shalbe dead; so that by thys meanes I shall escape thys reprochfull and shamfull death.” So your byshopes (most victorionse Prince) if they might haue gotten in the Bible for vii. yeres, they wolde haue trusted that by that tyme, ether, youre Highnes shoulde haue ben dead, or the Bible forgotten, or els

they them selues out of your Highnes reache, so that you should not haue had like power ouer them as you haue nowe. Wel, go to, we trust ere the vii. yeres be past, God shall renaile vnto your Highnes moche more of theyr subtyll imaginations then we are worthy to know of. Moreouer, wil your Highnes se howe faythfully they dyd youre commaundement, when you appoynted two of them to ouer loke the translation of the Bible? They sayd they had done youre Highnes commaundement therin, yea, they set their names there vnto; but when they sawe the worlde som what lyke to wrynge on the other syde, they denyed it, and said they neuer medeled therewith, causyng the prynter to take out theyr names, which were erst set before the Bible, to certifie all men that thei had diligently perused it according as your Highnes had commaunded. One other poynt of theyr diligence your Highnes may note in the setting furth and vsyng of youre Hyghnes Primer both in Englysh and Latin. And in the diligent readyng vnto the people, the exhortation to prayer, which you ordeyned and commaunded to be redde alwaies before the Prosession in Englysh. We thynk no man can blameles say, that euer he heard one of them reade it twyse ouer. Yea, when your Highnes was returned from youre victory done at Bullyn, they dyd what they coulede to haue called it in agayne. In so much that they caused all such parishes as they myght commaunde, to vse theyr olde Kyre Eleyson agayne. And yet to this daye, thei vse, on solempne feastes, to folow theyr olde ordinary, not withstandyng your Highnes commaundement. But when thei katech any thyng that soundeth to the contrary, it shall not escape so, we warrant you. It shalbe swynged in euery pulpyt wyth, "this is the Kynges gracious wyl; and yet these heretiekes wylbe styll doynge in the Scriptures. A shomaker, a cobbler, a taylor, a boy not

or themselves out  
of your reach.

Two were  
appointed to  
overlook the  
translation,

and set their  
names to it, to  
testify they had  
done so;

afterwards they  
had their names  
omitted, saying  
they had never  
meddled with it.

They never read  
the exhortation to  
prayer, as com-  
manded by your  
Highness,

and on Feast  
days use the old  
ordinary.

When they catech  
anything they  
like, it is  
"swinged" in  
every pulpit,  
as the king's  
gracious will.

They say how  
well disposed the  
people used to be;

how many  
hospitals were  
built,  
and colleges  
founded;

and would add,  
abbeyes and  
chantries were  
then founded,  
if they dare.

If they had their  
way, building  
would be the best  
trade going.

We pray that  
their subtleties  
may always come  
to light before  
they prevail;

that these sturdy  
beggars be rooted  
out;

and that the  
tenth of every  
man's increase  
may go to the  
poor,  
as it was long  
before Christ,  
and long before  
the Law.

yet xx. yeres of age, shal not stycke to reprove that a lerned manne of xl. yeaeres studye shall affyrme in the declaration of Gods Word. O how godly wer the people disposed, when thei knew nothyng of the Scripture, but as thei were taught by profound clerkes and well lerned men! Then were there hospitals buylded for the poore. Then wer there coleges buylded for the maintenaunce of lernyng." Yea, if they durst they would say, "Then were abbayes & chauntries founded for the realyfe of the pore soules in the bitter payns of Purgatory. Then were our purses filled with the offerynges of the deuout people that vsed to seke the blessed images, and reliques of our Sauior Christ, & of his Blessed Mother Mary with the residue of his saints." If your Highnes would rayse vp but one abbe, chauntry, or pilgremage, you shuld easely perceiue which way thei are bent. We dout not but for these vii. yeres folowyng, masons occupation, with other be-longyng to buyldyng, would be the best handy craftes within this your royalme. We praye God their subtyll imaginations maye alwaies come to lyghte before thei preuail to the hinderance of Gods veritie. And that it may please hym alwaies to assist your Highnes in the defendyng and setting furth of the same, to hys glory, and the soul helth of vs, your Highnes most faithful & obedient subiectes. And that you leaue not of, tyll you haue roted out al these sturdy beggers, that the pore members of Christ may haue that porsion to lyue vpon, which was from the beginnyng apointed for them. We meane the x. part of euery mans yerly increase. For though, at the commyng of Christ, and long before, these tenthes were geuen to the pristes of the lawe, yet was it not so from the beginnyng; for at the fyrste, because the world was not so replenished with people, but that euery man was a great possessioner, it was thought good to take of the best of their increase and

to offer it to the liuyng God in sacrifice, as it appereth by the storic of Abel and Cain. But whan the people grewe to so greate a numbre that euerye man coule not haue a sufficient porcion to lyue vpon, vnlesse he were able to laboure and tyll the grounde; then was it prouided that euery possessorer shoulde set the tenth of his yearely increase in the porche of hys house, that the lame, blinde, sycke, and diseased, myght be there releued. This order continued tyl the time that Moyses, by the commaundement of God, gaue a lawe to the Israelites, and appoynted that a certayne kynred amongst them, that is, the Levites, shuld be alwayes theyr priestes, and mynisters of the Tabernacle; vnto whom he appoynted certayne partes of euery sacrifice, that they myght lyue therby. For as yet there was no tenthes to be paid, for then they were in their iorney from Egypt, which iorny continued ful xl. yeres; but after that they wer once settled in the Lande of Promesse, and gathered the fruytes of the grounde, they thought good to gene the tenthes of theyr increase to the priestes that ministred in the Tabernacle, that they myght lyue ther vpon, accordyng to the wordes of the prophet Mal. iii:—"Bring in eueri tenth into my barn, that ther may be meat in my house." But then ther was an other pronyson for the poore, Leui. xxiii. For no man myght lease, rake, or gleane his grounde after he had gathered of his crophe. Noo, they mighte not gather their grapes nor frutes twyse, but must leue the latward fruit, with the scateryng of theyr come, for the poore to gather, that they myghte haue some relyefe therby; this order continued to the commyng of Chryst. After whose commyng, the Christian sort had all thynges commune, so that no man knewe of any increase, for as much as no man toke anye thyng for hys owne, Actes iiii. But when the numbre of Christians encreased so muche that they possessed hole cyties,

At the first every man offered his sacrifice to God, as we learn by the story of Cain and Abel.

Then Moses gave a law, commanding a certain family to be priests,

who were to receive a part of every sacrifice.

When they were settled in Canaan, tenths of all increase were given to the priests, who ministered in the Tabernacle.

Other provision was made for the poor, so that they might have some share in the produce of the earth.

After Christ, the Christians had all in common.

This did not answer when they increased in number.



countrieys, & kyngdomes, it was thought good that euery man should knowe hys owne, to the intent that such as other wyse woulde haue lyued ydly shoulde therby be prouoked to laboure, as apeareth by the rule that Saint Paul gaue to the Tesselonians, ii. Tesseloni. iii.<sup>1</sup>, which was thys :—"Who so laboureth not, let hym not eat."

But no tenths were paid to the ministers.

Yet was ther no tenthes payd to the ministers, for Paull wrytinge to the Corinthians, i. Corin. ix., desireth them to be good to such as laboure in the ministration of the Gospell, affirminge that it is but mete that suche as serue the autler, should haue a liuyng therby ; and that it were farre vndesent to musell the ox that trauayllet all the daye in treading the corne out of the strawe, Deutro. xxv. Which thinge he neded not to hane done, yf the tenthes of ech mans encrease had as than ben geuen to them ; for that myght haue sufficed them well ynough (onlesse they had ben as gredye as oure ministres bee, whiche be neuer satisfied<sup>2</sup>).

After this, when the Christian religion was established, and men spent their time over the Scriptures, it was thought good to provide for the poor, by reuerting to the old law.

Yet after thys, whan the Christian religion was thorowly stablyshed in many congregations, & many men had laboured ouer the Scriptures, they thoughte good to provide for the poore impotent creatures accordinge<sup>3</sup> to the example of the auncient fathers of the olde lawe. And bycause they were perswaded that Christ, offering vp him selfe vpon the crosse, had ended all sacrifice, Hebre. x., so that the ministers amonge them neded not to bee pestered with any other thing then preaching, they agreed to adde vnto the preachers an other sort of ministers, which myght supplie the office of holy Steuen, and the other which, in the primatiue church, were appointed to distribute the goodes of the congregation, accordinge as euerye man shoulde stand in neade, Actu.

In the apostles' time, deacons were appointed to distribute to the poor, according to their need ;

and these deacons received the tithes.

vi. To these men they gaue the tenthe of theyr yerlye encrease, to the intent that they shoulde there vpon

<sup>1</sup> Orig. iiii.

<sup>2</sup> Orig. satisfieth.

<sup>3</sup> Orig. accordigne.

minister all necessities, as well to the preachers, as to the poore impotent membres of the church.

But after that persecution began to sease, & the preachers of the worde of God lived in peace, and that the people were fully bente to learne & followe the doctrine of Christe; they dyd by the preachers, as the Israelites wolde haue doone by Christe, when he had fede so many of them wyth so lytle bread, Iohn vi. They made them theyr rulers, thinkynge that those men which had broughte them out of the darkenes of erreure, and instructed them in the true knowledge of God, coule best gouerne the publike<sup>1</sup> weale. And woulde walke most vpryghtly in example of lyfe, compellinge the people ther by, to embrace all godlye & honest lyuinge, and to detest and abhorre the contrari. This was their intent (most gracious Prince) whan they gaue rule to the preachers of Goddes truth and verite. And in very dede the thinge pruned according to their expectation, for a season.

When persecutions began to cease, and ministers lived in peace, and people began to learn,

they made their ministers rulers, thinking they would walk most uprightly.

This answered for a season.

But alas, after the true shepherdes were departed out of thys lyfe, there entred into the foulde most rauening woulfes, of whom Saint Paule gaue vs warnyng, whan he said "I know for a certenty, that immediatly after my departinge from you, there shall enter in amonge you certen in sheppes clothing, but inwardly they are rauening wolfes," Act. xx.

After these shepherds died

wolves came into the fold,

The lyke thyng dyd Sainte Peter forsee, when he premonished the elders, that they shold not behaue themselves toward the people, as men hauing dominion ouer them, i. Pe. v.

These hierlinges intended not to maintain & increase the spiritual treasure of the congregation, but to fyl their owne coffers with golde and vayne treasure; to bringe them selues aboute kinges and emperours, yea to be taken for Goddes vicars vpon earthe. And

who only intended to fill their coffers with gold, and to raise themselves above all kinges and emperours.

<sup>1</sup> Orig. publike.

They promised  
to keep hospitality  
for the poor,

and the people  
not only gave  
them tenths,  
but possessions  
also, that they  
might be more  
hospitable.

Then came  
traditions,  
or church laws,  
which were  
supposed to have  
as much authority  
as the commands  
of God.

Now they may  
command us to  
build churches  
with high  
steeples and  
bells;

to believe  
their masses,

and Pope's  
pardons;

that they myght the soner bringe this their purpose to passe, they persuaded the people that it should be much more conuenient that they had the tenthes & patrimony of the church (as they cal it) then the deacons, whom the people had elected there vnto. And that it shoulde be more beseaming that the deacones were at theyr fyndinge, then that they shoulde be at the deacons findinge; for they woulde kepe hospitality for the poore, accordinge as the institution of the Apostles was that they should; whiche thyng they could not do onles they had wher withal to maintain it. By these meanes were the people sone persuaded to geue vnto them not onely the tenth, but certain possessions also, to thentent thei might maintayne the more liberal hospitality for the relieue of the pore. This done, all theyr study was to set them selues so hyghe in the conscience of the people, that they shoulde take all theyr traditions to be of no lesse authoritie then the commaundement of God. To do this they could find none so ready a way as to name theyr traditions the lawes of the church. For yf we beleue that Christe is the heade of the church, and that he is God; then muste we neades graunt that the lawes of the church be Goddes lawes. O diuclish subiltie, more then serpenticall! What subtyl fouler could haue diuised a more subtyl trayne to bring the poore, simple byrdes into his nette? Certes, yf al the deuels in hell had ben of theyr counsel (as we thinke they were) they could not haue concluded vpon a more subtil imagination. Now haue they ynough, what needeth them to seke any further? Now may they commaunde vs to buylde them goodly churches with hyghe steeples, & greate belles to ryngoure pence into theyr purses, when our frendes be dead. Nowe may they make vs beleue that theyr masses be helpful sacrifices, both for the quick and the dead. Nowe must we beleue that the Popes pardons do re-

lease vs both from payne and faute, but Christ releaseth the faute only. Now must we beleue they can make of two creatures one, that is to say, coniure water and salte that it be made a medicine both for bodye & soule; and of such force that it may be able to roote out the deuell him self with all hys aungels and ministers. Nowe must we beleue that repentaunce auayleth vs not, onles we declare all our synnes, with the circumstance therof, to one of them, and do such satisfaction as they shal appoint vs to do. Now can we not denye but that the outragious belowing of a sorte of<sup>1</sup> sodomiticall buls, myngled with the proud pipyng of organs, is the seruice of God, and worthy to be preferred before the redyng and preching of Gods Worde. Now must we beleue that God wyl not heare our praier onles we be in fauoure with some of the deade saintes which wyl be our aduocate. Now must we beleue that the making and gylting of ymages, building of abayse, churches, chauntries, gyldes, hermitages, and gyuinge of boke, bell, candelsticke, basen, yower, erwetes, pax, chalyse, corporace, vestimentes, aulter clothes, curtens, hanginges, towels, torches, tapurs, shepe, sensoures, pixese, coopes, cannebes, & runnyng on pilgrimage, is more acceptable to God then the vii. workes of mercy. Now must we beleue that they can not erre, though they set vp the bloude of a dueke to be honored for the verye bloude of Christe, though they made the Roode of Kente to wagge hys yies, though they were baudes & fornicators with the holy whore of Kent. We maye not thinke they ought to marye wyues, though we take them dayly abusinge other mens wyues. We muste not saye that they are rauenyng woulfes, but the true shepherdes of Christ; although we see them bothe bye & sell the congregacions of Christ; & when they haue them, loke for nought els but what yearelye rentes may

that holy water  
may become a  
medicine for  
body and soul;

that repentance  
auails nothing,  
unless we confess  
to a priest.

We must believe  
that church  
music is the  
seruice of God;

that He will not  
hear our prayers  
unless we are in  
favour with  
certain saints.

We must believe  
that the gilding  
of images, the  
building of  
religious houses,  
the giving of  
ornaments and  
vestments to the  
churches, is more  
acceptable than  
works of mercy;

we must have  
faith in the  
infallibility of the  
clergy, though  
they set up the  
winking rood of  
Kent.

We must think  
celibacy is right;

we must not say  
priests are  
wolves, though  
we see them buy  
and sell the  
congregacions of  
Christ.

<sup>1</sup> Orig. af.

Your Highness  
knows their  
desire to feed  
the flock;

how a law was  
passed compelling  
them to preach  
four times a year.

But they pleaded  
for the chaplains  
of your Majesty,  
and the law was  
relaxed for all  
such as held  
office, either  
under the king or  
the nobles.

We are compelled  
to forget we are  
your subjects,  
and claim to be  
brothers with  
you in God's  
household.

Ahab when he  
intended to go  
against Ramoth,  
consulted the four  
hundred false  
prophets,

and they told  
him he should  
prosper;

be clearlye reased therof. Your Highnes knoweth ryghte well what desyre they haue to feed the flocke, for it is not yet many yeares sense youre Hyghnesse, in your hygh Courte and Parliament, was, by theyre negligence, constrayned to establishe a lawe, that, vnder payne of a forfayte, they shoulde preache in euery of theyr paryshes foure tymes in a yeare at the leste, and that none shoulde haue moe benefices then one, wher-vpon he shoulde be reasident. But here they put your Highnes in mynde of all such chapelyns as do seruice to youre Hyghnes, and to other your nobles of this your realme, besides other, certain graduates of the vniuersities. Wherevpon it was provided, by the author-ite of the sayd parliament, that euery such chaplayn myght haue many benifices, and be non residence, to lye at the vniuersitie, or els where, at his pleasure, so he wer in any of your nobles seruice. Oh gracious Prince, here are we, your natural, and most obeisant leage people, constrayned to forget (with all humble subiection we speke it) that we are of nature & by the ordinaunce of God your most bounden subiectes, and to cal to remembraunce that by our second byrth we ar your brothers and felowe seruantes (althoughe in a much inferior ministry) in the houshold of the Lorde our God. Most humble beseking your Highnes to forget also in thys poynte that you are our Leage Lorde and Souerayne, taking our wordes as a token of the fernent desire that we (your most faithful subiects) haue of your solles saluation. Achabe kyng of Israel, whan he intended to make a viage, and to take by force the country and inhabitantes of Ramoth Giliade, he caused hys prophetes, to the nombre of CCCC. false prophetes, to be brought before him, that he might know by them whether the Lord wolde prosper his iorney or not. These false prophetes, standing in the syght of the kynge, & beinge demaunded of him,

whether he sholde make expedition against Ramoth or not, answered with one voice, "Make expedition, the Lord shal geue it into the handes of the king," iii. Reg. xxii.<sup>1</sup> In lyke maner (most dread Souerayne) your Hyghnes & youre most noble prodicessours, haue alwaies consulted a great nombre of false prophetes, which, as Achabes prophetes dyd, prophesied vnto you lies; wringyng & wrestyng the Scriptures to stablishe your Hyghnes in all such thynges as they perseyued you bent vnto. And if at any tyme anye true Micheas haue prophesied vnto you the trueth of Gods Worde, one Sedechias or other boxeth him on the cheke that he renneth straight into the fyre. So that hitherto they haue led your Highnes in this detestable erreure, that you thynke it lawfull for you and your nobles, to reward those false flattering Babilon[i]eall prophetes wyth that porcion which, by the ordinance of God, is dwe to the poore impotent creatures, the lame, blynde, lazer, & sore membres of Christe. We beseke you (most deare Soueraine) euen for the hope you haue in the redemption by Christ, that you call to remembrance that dreadfull daye, whan your Highnesse shall stande before the iudgement seat of God in no more reputation then one of those miserable creatures which do nowe daylye dy in the stretes for lack of theyr dwe porsion, wherwith you & your nobles do reward those gnatonical elbowhangers, your chaplaines. Yf theyr ministrie be so necessary to your Highnes that you can not lacke them, yet let not the vnsasiabie dogges deuour the bread that was prepared for the children; let them be appoynted lyuinges worthy their ministration. What reason is it that a surueyer of bildinges or landes, an alckmist, or a goldsmith, shoulde be rewarded with benefice vpon benefice, which of very reason oughte to be committed to none other but such

so haue you,  
and your pre-  
decessors, and  
they haue told  
you lies;

while he who  
said the truth  
was burnt.

Your Highness  
thinks it lawfull  
to give to these  
flattering priests  
that which  
should belong to  
the poore.

Remember the  
Day of  
Judgment,

when you will  
stand as he who  
dies in the  
streets.

If your Highness  
cannot do  
without these  
priests,  
give them livings  
worthy of their  
ministration.

Why should  
surveyors,  
alchemists, and  
goldsmiths have  
benefices,

<sup>1</sup> 1 Kings xxii. in the Authorised Version.



which ought only  
to be given to  
godly and learned  
men?

(Story of the  
chaplain, who  
had so many  
livings

that he didn't  
know them when  
he saw them.)

Your Highness  
would not  
commit your  
swine to the  
keeping of  
swineherds  
who did not  
know the cots  
when they saw  
them.

as, through godly lerninge and conuersation, wer able,  
and would apply them selues, to walke amydes theyr  
flocke in al godly example and puritie of lyfe? Howe  
greate a numbre is there of theym that, vnder the  
name of your chaplynes, may dispend yerly by bene-  
fices, some one C., some CC., some CCC., some CCCC.,  
some CCCCC. ; yea, some M. markes and more ! It  
is a comone sayng among vs, your Hyghnes pore com-  
mons, that one of your Highnes chapplene, not many  
yeres synce, vsed, when he lusted to ride a brode for  
hys repast, to cary wyth hym a scrowle, wherin wer  
written the names of the parishes wherof he was parson.  
As it fortun-ed, in hys iourney he aspi-ed a churche  
standynge vpon a fayre hyll, pleasauntly beset with  
groues and playn fel-des, the goodly grene medowes  
lyng beneth by the banckes of a christalline ryuer  
garnished with wyllouse, poplers, palme trees, and  
alders, most beautiful to behold. This vigilant pastoure,  
taken with the syghte of this terestial paradise, sayd  
vnto a seruau-nt of his (the clerke of his signet no  
doubte it was, for he vsed to cary his masters ryng in  
his mouth) "Robin," sayd he, "yonder benefice  
standeth very pleasantly, I would it were myne." The  
seruau-nt aunswered, "Why, syr," quoth he, "it is  
your owne benefice ;" and named the parish. "Is it  
so?" quoth your chaplen. And with that he pulled out  
his seroule to se for certentie whether it were so or not.

Se (most dread Souerayn) what care they take for  
the flocke. When they se theyr parysh churches they  
knowe them not by the sittuation. If youre Highnes  
had so manye swyne in youre royalme as you hane  
men, would ye commyt them to the kepyng & fedynge  
of such swynherdes as did not know theyr swynsecotes  
when thei sawe theym? Oh merciful God, how far  
wide is this our tyme from the primatiue church ! De-  
fer not (moost deare Soueraine) the reformation of this

mysse ; for the day of the Lord is at hand, and shall come vpon vs as a thefe in the nyght, ii. Peter iii.

Disceiue not your selfe through the false gloses of these flatteryng ipocrytes. Turne them out after theyr brethren, the pyed purgatory patriarkes ; and restore to the poore members of Christ theyr due portion, which they trusted to haue receiued, when they sawe your Highnes turne out the other sturdy beggers. But alas !

Turn them out after their brethren, and restore to Christ's poor members their due portion.

thei failed of theyr expectation, and are now in more penurye then euer they were. For, although the sturdy beggers gat all the deuotion of the good charitable people from them, yet had the pore impotent creatures some relefe of theyr scrappes, where as nowe they<sup>1</sup> haue nothyng. Then had they hospitals, and almeshouses to be lodged in, but nowe they lye and storne in the stretes. Then was their number great, but nowe much greater. And no merueil, for ther is in sted of these sturdy beggers, crept in a sturdy sorte of extorsioners.

The poor got relief from the monks,

but now they get nothing ; there are no hospitals, and the poor lie and die in the streets.

These men cesse not to oppresse vs, your Highnes pore commons, in such sort that many thousandes of vs, which here before lyued honestly vpon our sore labour and trauayl, bryngyng vp our chyldren in the exercise of honest labore, are now constraigned some to begge, some to borowe, and some to robbe & steale, to get food

Extortioners have come in who oppress the poor commons ;

who must beg, borrow, or steal.

for vs and our poore wiues & chyldren. And that whych is most lyke to growe to inconuenience, we are constrained to suffer our chyldren to spend the flour of theyr youth in idlenes, bringyng them vp other to bear wallettes, other eles, if thei be sturdy, to stuffe prisons, and garnysh galow trees. For such of vs as haue no possessions lefte to vs by oure prediccours and elders departed this lyfe, can nowe get no ferme, tennement, or cottage, at these mens handes, without we paye vnto them more then we are able to make. Yea, this was tollerable, so long as, after this extreme exaction, we wer not for the residue of our yeares oppressed with

Our children grow up in idleness, to stuff prisons, or garnish the gallows.

We can get no farm, no cottage ;

<sup>1</sup> Orig. thye.

rents are raised  
much higher than  
they were.

Abbey lands are  
bought of the  
king,

and the buyers  
compel us to  
bring in our  
covenants,

and take new  
leases, telling us  
that all our  
former writings  
are void,

when we ought  
to hold for two  
or three lives  
longer.

We cannot send  
our children  
to school,

they must labour  
to help pay  
the rent.

much greater rentes then hath of ancient tyme bene  
paied for the same groundes ; for than a man myght  
within few yeres be able to recouer his fyne, and after-  
warde lyue honestly by hys trauel. But now these  
extorsioners haue so improued theyr landes that they  
make of xl. s. fyne xl. pounde, and of v. nobles rent  
v. pound, yea, not suffised with this oppression within  
theyr owne inheritaunce, they buy at your Highnes  
hand such abbay landes as you appoint to be sold.  
And, when they stand ones ful seased therin, they  
make vs, your pore commons, so in dout of their threat-  
ynges, that we dare do none other but bring into their  
courtes our copies taken of the couentes of the late dis-  
solved monastaries, and confirmed by youre Hygh  
Court of Parliament, thei make vs beleue that, by the  
vertue of your Highnes sale, all our former writynges  
are voyde and of none effect. And that if we wil not  
take new leases of them, we must then furthwith avoid  
the groundes, as hauyng therin none entrest. Moreouer,  
when they can espy no commodious thyng to be  
boughte at your Highnes hand, thei labour for, and  
optayne, certayne leases for xxi. yeres, in and vpon such  
abbay landes as lie commodiously for them. Then do  
they dashe vs out of countenaunce with your Highnes  
authorite, makyng vs beleue that, by the vertue of your  
Highnes leas, our copies are voyde. So that they com-  
pell vs to surrender al our former writings wherby we  
ought to holde some for ii. and some for iii. lyues, & to  
take by indenture for xxi. yeres, oueryng both fynes &  
rentes, beyonde all reason and conscience. This thinge  
causeth that suche possessioners as here tofore were  
able and vsed to maintain their owne chyl dren, and  
some of ours, to lernyng and suche other qualites as are  
necessarye to be had in this your Highnes royaume, are  
now of necessity compelled to set theyr owne children  
to labour, and al is lytle inough to pay the lordes rent,

& to take the house anew at the ende of the yeres. So that we your poore commons, which haue no groundes, nor are able to take any at these extorsioners handes, can fynd no way to set our chyldren on worke, no, though we profer them for meat & drynk & poore clothes to couer their bodies. Helpe, merciful Prynce in this extremite; suffer not the hope of so noble a realme vtterly to perysh, through the vnsatiabie desyre of the possessioners. Remember that you shal not leaue this kyngedome to a straunger, but to that child of great towardnes our most natural Prince Edward; employ your study to leaue hym a Commune Weale to gouerne, and not an iland of brute beastes, amongst whom the strongest deuour the weaker. Remembre that your office is to defende the innocent & to punysh the oppressar. God hath not suffered al your nobles to distayne their consciences with this most vngodly oppression. If your Highnes would take in hand the redresse of these great oppressions, dout ye not you could lacke no ayde, for he is faythfull that hath promysed to prosper al them that seke his glory and the welth of his pore membres in this church mylitant. Contrariwyse, if you suffre his pore membres to be thus oppressed, loke for none other then the ryghtefull iudgement of God, for your negligence in your offyce and mynistry. For the bloud of all them that, through your negligence shal perysh, shalbe required at your hand. Be merciful therfore to your selfe, & vs your most obeisant subiectes. Indanger not your solle by the sufferynge of vs, your poore commons, to be brought all to the names of beggers & most miserable wrechies. Let vs be vnto your Highnes, as the inferiour membres of the bodye to their head. Remembre that your hore heares are a token that nature maketh hast to absolue the course of your lyfe; preuente the subtile imaginations of them that galpe, and loke after the crowne of

SUPPLICATION.

6

Help us in our extremity,  
and do not suffer  
the hope of the  
realm to perish!

Study to leave  
your son, Prince  
Edward, a  
Commonwealth,  
not an island of  
beasts.  
Remember you  
are the defender of  
the innocent, and  
the punisher of  
the oppressor.

If you will  
redress our  
grievances you  
are sure of aid;

if not, the blood  
of those who die  
by your  
negligence  
will be required  
at your hands.

Remember  
your hoar hairs  
are a token that  
your life must  
soon end,  
and prevent the  
inaginations of

such as gape for  
your death.

We pray you  
may live to see  
the confusion of  
all such traitors,

and see your son  
able to govern  
the realm.

Vice is rampant  
in the land.

Simony has lost  
its name,  
and usury is  
lawful gain.  
Unless these  
things be  
redressed,  
they will bring  
the wrath of God  
upon us.  
By our example  
we are worse  
than Jews or  
Mahometans.

this realme after your daies. For what greater hope can thei haue as concerning that<sup>1</sup> detestable and deuylysh imagination, then that they might wynne the hertes of vs, your Hyghnes commons, by the deliueying vs from the captiuite and mysery that we are in? We beseke God, your Highnes maye lyue to put awaye al such occasions, and to se the confusion of all suche trayterous hertes; and that youre Grace may se that worthy Prynce Edward able to gouerne and defend this your realme, vanquishyng all his enemyse, bothe far and nere, as your Highnes, by the ayde of Almightye God, hath done hitherto. Defer not, most dread Souerayne Lorde, the reformation of these so great enormities; for the wound is euen vnto death, if it continue anye whyle lenger. A prynce welbeloued of his people is muche more ryche then he that hath houses full of gold. And yet is he much more ryche that is beloued of God. For if God bee on your part, who can preuayle agaynst your Hyghnes? By thys we meane the great and myghtie abhomination of vyce, that nowe rayneth within this your Highnesse realme this day. For hordome is more esteemed then wedlocke, although not vniuersally, yet amongst a great numbre of lycensious persons. Simoni hath lost hys name, and vsery is lawfull gaynes.

These thinges, onlesse they be redressed, wyl bringe the ire of God vpon the realme. For what doth it lesse then declare vs to be cleane fallen from the doctrine of Christ, who taught vs to lende, lokinge to haue no gayne therby? What example of lyfe is in vs this daye to declare, that we rather bee the people of God then the Iewes or Maometause? Certes (most renomed Prince) none but that we confesse hym to be God. And that were sufficient, yf our deedes dyd not denye him. Yf the rulers haue geuen the occasion of these thynges, alas for them; they had ben better to haue had mylstones hanged about theyr neckes, and haue

<sup>1</sup> Orig. than

ben cast into the sea. But if the people haue taken it of them selues, and be not punished of the rulers, but be permitted frelye to vse it; the blud of them that perish shalbe requered at the watchmans hand, Ezechi. xxxiii. Thus princes are punished when the people offende. But now (most deare Souerayne) your Highnes may in this matter try your prelates whether they be of God or nat; for yf they were of God, they woulde, accordinge to the wordes of the prophet, neuer sease, but openly and with a crynge voyce, declare vnto the people theyr faultes, Esai. lviii, and not be hushed wyth an acte in parliament; for that declareth them to be the setters forthe of mans tradicyons and not of Godes lawes, so that this saying of our Sauour Christ is verified in them:—"This people honoreth me with theyr lypes, but their herte is fare from me: they teache the doctrines and commaundementes of men," Math. xv. But here they thynke to stop oure mouthes wyth the feare of youre Highnesse displeasure; they say youre Highnes lawes are Godes lawes, & that we are as moch bounde to obserue them as the lawe of God geuen by Moyses. Trueth it is (most deare Lorde), that we are bounde by the commaundement of God, to obey your Hyghnesse, & all youre lawes set forth, by your Hygh Court of Parliament, but yf they dissent from or be contrary to anye one iote of the Scripture, we muste, with Ihon & Peter, say, Actu. iiii, "Iudge you whether it be better for vs to obeye God or man." We speake not this because we think by this, that we may rebel agaynst you, our naturall Prince. But that yf youre Hyghnes would enforce vs by a law to do any thing contrary to that God hath commaunded vs, that then we ought manfully to cleaue to the truth of Godes word, boldly confessing the truth therof, fearing nothing the death of this body; and yet moost humble submittinge oure selues vnto you, redy to abyde and pacientlye to suffer what kynde of torment so euer

If the prelates  
are of God,

they will tell the  
people of their  
faults.

They tell us we  
must keep the  
laws of the king  
as we would keep  
the laws of God.

True; but if they  
dissent from  
God's laws,

we must act as  
John and Peter  
did.

We don't say  
this because we  
think we may  
rebel,  
but if you would  
enforce us to  
anything  
contrary to  
God's law,



we must submit  
to punishment.

But these dumb  
dogs only fawn  
upon their  
masters.

Before the law  
allowed 10 per  
cent. they could  
preach against  
usury,

but now they  
are silent.

A grievous  
burden on the  
city of London

are the extortion-  
ate charges which  
are made on every  
man in respect  
of tenths.

should be leyd vpon vs, knowing for certenty that we are happy when we suffer persecution for the truthes sake, and that he is faythfull that hath promessed to be reuenged of oure iniuries. But these dombe dogges haue lerned to faine vpon them that vse to bringe them bread, and to bee wonderful hasty when they be mantayned and cherished; but yf they be but ones byde cowche, they know their liriopope so well that they draw the tayle betwine the legges, and gette them selues streyght to the kennell. And then come who so wyll, and do what they wyll, these dogges wyll stere no more tyll they heare theyr maister saye, "hye cut and longe tayle." So frayd they are of stripes, and leste they shoulde be tyde vp so short that they myght not raynge a brode and wory now and than a simple lambe or two. Before it was passed by Acte of Parliament that men myghte take x. li. by yeare for an hondreth pound lone, how vehement were they in the matter? All theyr sermons were lytle other then inuectiues agaynst vsery. Then they could aileage both Christ and the Psalmist to proue that Christen men ought to lende what they may spare, & to loke for no gaynes therof. But nowe they do not only holde them selues styll as concernyng this matter, but also they endeuoure to imitat, yea, and to passe the example of the extorsyoners and vsurers. For euen the laste yeare they opteyned by theyr importune sute, a graunte whych, yf it be not reuoked, wyll in continuance of tyme be the greateste impouirishment of vs your poore commons (and chyfly in the cite of London) that euer chanced sence the fyrst beginnyng therof. They haue obtayned, and it is enacted, that euery man wythin the sayd cytie, shall yearly pay vnto them accordyng to the rentes they are charged wyth xvi. d. ob. of euery x. s. So that yf the lordes of the groundes do double & triple the rentes, (as they do in dead) then most the pore tenantes paye

also double & triple tenthes as dwe encrease of their riches : this is not vnyke vnto that which is practised in the contry amongst vs your Highnes poore commones. For when it hath pleased God to punish vs with the rot of our shepe, so that perhappes some one of vs hathe hylded C. shepe, then haue some of the persons constrayned vs to geue them x. of the felles, for they cal it increase so longe as we sell them. And therfore must they (as Godes debities) take the tenth therof. Haue compassion vpon vs (most gracijs Soueraine) ; suffer not these vnsatiabie dogges thus to eat vs out of al that we haue ; considre that it is against al reason & conscience, that we, your pore commones, should be thus oppressed ; that where the landlorde taketh of vs duple & triple rent, that then we shall pay also to the person duple or triple tenthes. But see (moost dere Souerayne) howe craftely they haue wroughte thys feate ; they requyre not the tenthes of the lande lordes that haue the increase, but of the tenauntes, whych of necessitye are constrayned to pay to the lordes theyr askynge, other elles to be without dwellinge places. They know right well that yf they shoulde haue matched them selues with the landelordes, they hapelye shoulde haue bene to weake for them at the lengthe. But they were in good hope that we (your poore commons) shoulde neuer be able to stande in theyre handes, as in verye deed we shall not onles your Hyghnes wyll vouldsafe to take our cause in hand ; for yf we haue not wherwith to pay them, they mai, by the vertue of the acte distresse suche implementes as they shal fynde in our houses. They know our conditions of olde, sence they toke theyre mortuaries. We had rather, in maner, fanysh oure selues for lack of fode, and to make right harde shyft besydes, then that we woulde be troubled for anye suche thyng. And doutlesse (most renommed Prince) yf the oppression were not

It is as bad in the country.

If 100 sheep die of rot, the parsons compel us to give them 10 of the skins: they call it all increase.

Don't let us be thus oppressed, to pay double or triple tenths, on double or triple rents.

We cannot stand against the priests, unless you take our cause in hand.

We would rather starve than trouble your Highness,

and if the oppression had

not been so  
unreasonable,  
we should have  
borne it.

We would rather  
fast three days  
a week than  
seem slack in  
keeping the law.

People beg at  
Easter to pay for  
the Sacrament;

they beg to bury  
the dead.

A naked corpse  
was carried to  
be buried in the  
city of London,

and sent into the  
street again  
till the poor  
could beg enough  
to pay the priest's  
due.

The men who  
profess to teach  
the ignorant,  
and to be the  
light of the world,  
act thus,

and call the laity  
brute beasts.

to moch beyond all reason and conscience, we woulde neuer haue troubled youre Highnes with all. Yea, yf there were any hope that they would be satisfied by this, we woulde rather fast iii. dayes euery weake, then we woulde seame to be slack in doying all such thynges as the lawe byndethe vs to. But we se daylye so great increase of theyre vnsatiable desire, that we fear lest in processe of time they wil make vs all begge an[d] brynge to them all that we can gette. It is no rare thinge to se the poore impotent creatures begge at Easter to pay for the Sacrament when they receaue it. And it is no lesse commune to se men begge for such dead corpses as haue nothinge to paye the pristis duitie.<sup>1</sup> Yea it is not longe sence there was in your Highnes cytie of London a dead corps brought to the church to be buried, beyng so poore that it was naked wythout any cloth to couer it. But these charitable men, whiche teache vs that [it] is one of the workes of mercy to bury the dead, woulde not take the paynes to bury the dead corps, onlesse they had theyr dutye, as they call it. In fyne, they caused the dead corps to be caryed into the strete agayne, and there to remayne tyll the poore people, whych dwelled in the place where the poore creature dyed, had begged so moch as the pristis call theyr dwe. O mercifull Lord, who can be able worthily to lament the miserable estate of thys tyme? When those men whiche in all thyngge professe to be the light of the worlde, the teachers of the ignoraunte, & the leaders of the blynd, are so fare withoute mercy (whyche Christe preferred before sacrifice) that they wyl not do so moch as wast a lytle of theyr breathe in readinge ouer a fewe psalmes at the buryall of one of the poore membres of Christ, onlesse they haue money for theyr labour! And whan those persons whom the other, called spiritual, do compt but as brute beastes, callinge them temporall, shall showe more mercy, the badge of

<sup>1</sup> Orig. diuitie.

the Christian souldiers, towardes the poore membres of Christ, then they which glory to be the true prophetes of Christ, and successours of the Apostles ! Yea, when those paynted sepulchres be so merciles that they pitie not them, whom the verye infidelles woulde pitie ! Wher is theyr so litle mercy showed as amongst them ? In so much that theyr couetouse is growne into this prouerbe, “ No peny, no pater noster.” For they wyl not do that thyng whych euery Christian is bounde to do for other, onles they may be waged for money ; they wedde and bury, and synge ful mery, but all for money. If your Highnes would call a compt of them, and cause them to shewe the bokes of the names of them that haue ben buried & married with in thys yeare, conferringe that numbere wyth the summe of money they take for euery such burial & mariage, you should easily perseauue howe lytle neade they haue to oppresse vs with double & triple tenthes. Iudge then (most victoryouse Prince) what an vnresonable summe the whole & grosse summe of these enhanced tenthes wyth other theyr pettyt bryburrye, draweth to. They receaue of euery hondreth li. xiii. li. xv. s., & of the thousande, one hundreth, and xxxvii. li. x. s. Then may youre Highnes soone be certified what they receyue of the whole rentes of the citie. No doute (gracyouse Prynce) they receyue of vs yearly moore then your Hyghnes dyd at anye tyme when you were besette on euery syde wyth mortall enemyes. And yet theyr conscience woulde serue them wel ynowgh to take three tymes as moche as they do, yf your Hyghnes woulde suffer them. For they vse to saye that, for as moche as it is establyshed by a lawe, they may, wyth good conscience, take it yf it were more. Yea yf your Hyghnes woulde suffer them, theyr conscience woulde serue them to lye wyth our wines euery tenthe nyghte, other els to haue euerye tenthe wyfe in the paryshe at theyre

Their enuetousness has grown into a proverb :

“ No penny, no pater noster.”

The fees they receive for marriages and burials render tithes unnecessary.

Of every £100, they receive £13 15s.

They receive more than your Highness did when beset by mortal enemies ; yet they wish for more.

They would tithe our wives, if they were permitted.

Before long they  
will endeavour  
to make your  
Highness pay  
tithes;

as they compel us,  
not only to  
pay them,  
but the seventh  
penny of our  
rents also.

They will require  
your Highness  
to pay the tenth  
of the spoils of  
your enemies,  
as Melchisedec  
did to Abraham.

Let Paul's order  
take effect, and  
allow none to eat  
who will not  
work.

Let not Christ's  
lambs be given  
into the care of  
wolves,

pleasure. But oure trust is that your Hyghnesse wyll  
tye them shorter, and to saye the truethe it is tyme;  
for yf you suffer them a whyle they wyll attempt to  
make your Highnes pay the tenthes vnto them as longe  
as they haue payed them to you. For they haue al-  
ready soughte oute our ware houses, store houses, stables,  
wharffes, and barnes, causynge vs to paye, not onely the  
tenthe for that we neuer payd before; but also the vii.  
peny of the whole rentes, raised throughout the whole  
cylie. Who can iudge other therfore (moost drede  
Souerayne) but that they wold, yf thei wist how, cause  
your Highnes to pay vnto them not only the tenth of  
your yerely reuenues, but also the tenthe peny of all  
such spoiles as youre Highnes shall take in warres; for  
they carp moch vpon Abrahams geuinge of the tenth of  
his spoile to Melchisedech. Wherfor most merciful  
Prince, consider with mercy this pitiful complaint of  
vs your most faithful subiects, deliuering vs from the  
mouthes of these vnsaciable beastes, which do daylye  
employ them selues to deuoure vs, our wyues and chil-  
derne, euen as we were fode prepared for them to de-  
uoure. Let the order that Paule toke withe the fayth-  
full of the primatiue church, take effect in these our  
days, the last days of this miserable world. Let none  
eat that laboureth not, ii. Thessa. iii.<sup>1</sup> Let them also  
that be called to be preachers, haue the rewarde of  
preachers; ouerlode them not with the possessions &  
ryches of this world, for the cares therof do choke the  
worde. Let not eche rauenyng woulfe that commeth  
wyth a shepehoke in hys hande be receued as a shep-  
herde. Let not the simple lambes of Christ be com-  
mitted to the tuition of these so raueninge woulfes. Let  
not the porcion of the poore be committed to them  
that distribute not, but rather gather and heape vp,  
coumptynge all fyshe that cometh to the net. Let the

<sup>1</sup> Orig. iiii.

worthy prophetes that walke diligently in theyr vocation, be called to the gouernance of the spiritual flocke of Christ, and let them be repelled that come vncalled, we meane suche as sue to beare the name of youre Hyghnesse chaplaynes, onelye because they trust to optayne therby lordlyck liuinges out of the porsion of the poore. Take pity (mooste mercifull Prince) vpon vs youre poore, and faythful leage people; take pittie vppon youre owne soule, which shall at the laste daye be charged wyth all abuses that your Hyghnes suffereth frely to raygne. Beleue not those gnatonically adherentes that wyll not sticke<sup>1</sup> to affirme and denye, so that they may trust to please you therby. Let them not perswade your Highnes that al is good that is concluded in your Hygh Court of Parliament. Remembre, O, howe they ledde your Hyghnes when you sent forth your letters vnder your broode seale, streyghtly commaunding euery and singuler your Highnes subiectes, vnder payne of youre Highnes displeasure, to ayde, supporte, and forther all and singular prockters & pardoners. Remembre in what case they had brought iour Highnes when you thought it godlynes to viset in your owne parson the graues, images, & reliekes of dead saintes, doing to them diuine honour & reuerence. Let them not perswade you that God is or can be better serued in the Latine tong then in the Englysh; consider what great folly Saynte Paull counteth it for men to pray, which is to talke wyth almighty God, in a tong they vnderstand not, i. Corin. xiiii. Yea and how moch greater folly it is to thynke holynes in hearynge a tale told in a straunge tong. Your Hyghnes commaunded that none should receaue the Sacrament at Easter,<sup>2</sup> but such as coulde and dyd vse the Lordes prayer wyth the articles of the fayth in the Englysh tong. But they byd vs vse that which is most ready to vs.

but to worthy prophets who will walk diligently in their vocation.

Take pity vpon us, and vpon your own soul, which will at the last be charged with all the wrongs you have permitted.

Remember how these priests led you when you commanded us to aid proctors and pardoners.

Remember when you visited images and relics of dead saints.

Don't let the priests persuade you that God is better pleased with the service in Latin, which is a tongue the people do not understand.

<sup>1</sup> Orig. stickt.

<sup>2</sup> Orig. Erster.



They baptize in Latin, making us say 'Volo' and 'Credo,' when we don't know what is asked of us, and know not what we profess.

If a child receives any hurt, we blame the priest, and say that member was not well christened,

applying that which is spiritual wholly to the flesh.

The oath of obedience to your Majesty is in English, that we may know what is our duty.

Why then should not the oath which we take to God be in a language which we can understand?

We pray God to preserve your

They baptize our chylderne in the Latyne tong, beding vs say, 'Volo,' and 'Credo,' when we know not what it is that they demande of vs. By this meane is it broughte to passe that we know not what we professe in our baptisme, but superstitiously we think that the holynes of the wordes whych sound so straungly in oure eares, & of the water that is so oft crossed is the doying of all the matter. Yea we thynke that yf our chyl-dren be well plunged in the founte they shalbe healthfull in all theyr lims euer after, but yf they, by any misaduenture, receyue any hurte in any of theyr membres, incontinent we ley the faute in the prist, sayinge, that member was not wel christened. Oh mercifull God, what hert can be able worthely to lament this more then Iewdaical superstition? The thing that is mere spirituall, we applye whollye to the flesh. Was there ener any vayne ydolatours that woulde honour theyr goddes in a language they vnderstode not? Were the monkes, friers, and chanons, wyth other superstitious religions, professed in a straunge tong? Is not the othe of obeysaunce that we your leage people take vnto you, ministred in the English tonge? And for what other purpose but that we may therby knowe our mooste bounden deuitie toward you oure naturall Prince and Leage Lorde? Is it then beseamyng that we, takynge an othe of obeysaunce to the Kynge of all kynges, the God of all the world, and Maker therof, shulde not know what is demaunded of vs nor what we answere agayne? Yf we hold vs styll as concerning thys more then hell darkenesse, the very stones of your pallayce woulde make exclamation. Preuent therefore, most gracious Prince, the yre of God whiche hangeth ouer thys your royalme. Remember that his long sufferance shalbe recompensed wyth the extremitie of the punyshment. Wherefore, most worthy Prince, we humbly beseke oure heauenly

Father, the Geuear of al goodnes, euen for the Lord Iesu Christes sake oure Sauyoure and Redeamer, that he preserue you alwayes, geuinge you grace to walke circumspectly in your vocation and ministry, that, at the last day, you may receaue the incorruptible crowne of glory, and reigne with our Elder Brother the fyrst begotten Sonne of God the Father Almighty ; to whom wyth the Holy Goost be all honore and glory  
 for euer and euer. All true  
 Englysh hertes saye,  
 Amen.

Highness, giving  
 you grace to  
 walk circumspectly,

and bring you to  
 heaven at last.

Psalme. xl.<sup>1</sup>

¶ Happy is the man that pitieth the poore : for in tyme of trouble the Lord shal deliuer hym.

**T**Hus haue we (your moost obeisant subiectes) declared the feruent desire we haue not only of your prosperous succes in the affaires of this life, but also of your eternal reign with the Lord Iesu in the celestial kingdom, of whose fayth ye are, in earth, Defender, and of the faythfull congregacion, in this lytle angle of the earth congregate, the Supreme Heade immediatlye nexte vnto him, by whose mighty hand you haue hytherto vanquished, not onely the externe enemies of this moost noble royalme, but all such as haue most dyuilyshly ymaged, conspired, & attempted treason against youre Hyghnes, theyr moost naturall Leage Lord and Gouvernour. What histories should we reade to know of so many and so daungerous conspirations, so wonderfully detect & auoyded? Who myghte so sone haue wrought the most detestable purpose of treason, as she that slept in your bosom? What mighty princes haue ben betrayed by them that they haue loued aboue all creatures? And howe wonderfullye, euen at the verye poynt,<sup>2</sup> and in the time of most

Thus have we  
 declared our  
 wishes for your  
 success in this  
 life and in the  
 next.

By God's hand you  
 have vanquished  
 all the enemies

who have  
 conspired against  
 you.

<sup>1</sup> xli. in Au. Ver.

<sup>2</sup> Orig. yoynt.

That abominable  
idol, the Pope, who  
was so high in the  
consciences of us  
all,

he is become  
your footstool.  
Rejoice, for the  
Lord is your  
right hand.

Go forth to  
conquer; and  
return not till  
you have purged  
the Lord's  
vineyard.

Let not Prince  
Edward be  
oppressed in  
his youth,

but eall to mind  
your own youth,  
when these evils  
were too strong  
for you.  
There are many  
who would be  
glad to see the  
old times come  
again.

The wisdom of  
God lead you into  
all truth. Amen.

daunger, hath the myghtye hande of the Lorde deli-  
lynered you? Besydes this, that moost abominable  
ydoll of Rome, which sate so hygh not only in the con-  
scienees of vs your most bounden subiectes & poore  
commones but also your nobles (euen from the highest  
to the lowest) were all hys faythfull adherentes; in so  
moche that som of them would not styck to sheade the  
best bloude of theyr bodyes in hys quarel. And yet  
how wonderfully hath the Lord our God, made him  
iour fote stole? Reioise (deare Souerayne) reioyee. The  
Lord is your right hande, he hath found you faythful  
in a lytle, & shall ordeyne you ouer moch more. Onely  
beware that you, puttyng your hande to the ploughe,  
do not loke backwarde. Go forthe manfully to con-  
quere, and turne not agayne tyll you haue purged this  
vineyard of the Lorde, so that there remayne not one  
lytle impe besydes those that our Heauenly Father hath  
planted. Let not that noble Prince Edward be op-  
pressed in the dayes of hys youth, with the combrouse  
wealdynge oute of suche rotton and fruyteles trees, lest  
perehaunce they take deaper roote then that his tender  
youth may be able to moue. Forget not your owne  
youth, when these adulterine trees were to stronge for  
you. Thynke not but that you shall leaue behynd you  
a great nombre that wolde be glad to se the old stompes  
of these fruitles trees sprynge agayne. The Lord bringe  
them all to confusion, geuyng your Highnes long lyfe,  
with assistence of hys grace, to performe that whyche  
you haue begonne. The wysdom of the Lorde oure  
God leade you into all trueth. Amen.

¶ Your moste faythfull and  
obeyaunt subiectes, the Pore  
Commones of the Royallme  
of Englande.

Anno. M. ccccc. xlvi.

## ¶ Certayne

causes gathered together,  
wherin is shewed the decaye  
of England, only by the great  
multitude of shepe, to the vt-  
ter decay of houshold keeping,  
maintenaunce of men, dearth  
of corne, and other notable  
dyscommodities appro-  
ued by syxe olde  
Proverbes.

Prover. 20

A King that sitteth in iudge-  
ment, and loketh well about  
him, dryueth away all euell.

[The title of the Lambeth copy had Causes, onely, multytude, housholde  
kepyng, Kynge, euyl.]



To the Kynges moste honorable Counsell,  
and the Lordes of the Parlayment house.

**T**He fyrst Article & poynt, as we do thynke, it is<sup>1</sup> great pyttye (so the will of God it were) that there is not<sup>2</sup> corne ynough within this Realme of Englande, at all tymes necessary to certyfy & suffyce the Kynges subiectes for the space of one yere, two, or thre, yf there were no corne sown in this Realme by the sayde space.

It is a pity there is not corn enough in England to last 1, 2, or 3 years, if there were none sown during the same period.

We do saye that *the* Kinges Maiestie, mercifully hearing the petition of these his graces poore subiectes, maye at al tymes remedy it, when it shall \*please hys Maiestie, being for a common wealth for his graces subiectes, & to the greate encrease of this noble realme of England.

The king can remedy the matter when it shall please him [\* sign. A .ij.] so to do.

We saye, as reason doeth leade vs, *that* shepe & shepemasters, doeth cause skantyte of corne, whiche we do thynke<sup>3</sup> it maye be well approued, by reason of six prouerbes ; for & yf all our lyuynges, and all our commodities, were diuyded in partes, by reason of *the* same syx prouerbes, we that be *the* Kynges Maiestyes poore subiectes, do lose syx of our commodities, then haue we thre losses, whiche make nyne ; by reason of the same thre losses, we, the Kynges Magestyes<sup>4</sup> subiectes, do lose *the* third part of our lyuinge, then haue we the tenth part, which we cal a remedy, beseeching your noble grace, to remedye when your Maiestye shall please.

Sheep and sheepmasters cause scarcity of corn, as six proverbs will prove.

For if all our livings were divided into parts we lose 6 commodities, have 3 losses,

and the tenth part which is called a remedy.

<sup>1</sup> is it—C(ambridge copy).      <sup>2</sup> no—C.

<sup>3</sup> thinke—Lambeth copy; and with a *c* elsewhere.

<sup>4</sup> mayestyes—C.



As touchyng the fyrste prouerbe of the syx, we do thynke

Concerning the first proverb.

The more shepe, the dearer is the woll.

The more shepe, the dearer is the motton.

The more shepe, the dearer is the beffe.

The more shepe, the dearer is the corne.

The more shepe, the skanter is the whit meate.

[\* sign. A .iiij.]

The more shepe, the fewer egges for a peny.\*

In the 1st proverb the complaint is from Oxfordshire, Bucks, and Northampton-shire.

In *the* fyrst prouerbe, *the* more shepe, the dearer is the woll. Our complaynt is for Oxford-shyre, Buckyngham-shyre, & Northampton-shyre; and as for all other shyres, we refer it to the playntyues<sup>1</sup>.

We desire you to pardon our ignorance, but to consider what we advance, seeing it is done for the good of the realm.

We shal desyre you, and al other that reade and se the true ententes & meanynges of this our doinges, to pardon our ignorance; yet not withstandyng, we desyre you sumwhat to attender the premisses, seinge it is done, and put forth, for the commoditie of *the* Kinges Magesties realme, and for the welth of his graces poore subiectes.

In these 3 counties are many landowners

In the sayde Oxford-shyre, Buckyngham-shyre, & Northampton-shyre, there be many men of worshyp dwellyng within the sayde thre shyres, and hath great landes to lyue vpon, the which we praye to God to geue them ioye of, and well to occupye it. Many of these worshipful men, sette no store, nor pryse, vpon the mayntenaunce of tyllage of theyr landes, as before tyme hath been vsed, neyther breadyng nor feadynge of catle, but many of them doeth kepe the most substaunce of theyr landes in theyr owne handes<sup>2</sup>. And where tillage was wont to be, nowe is it stored wyth greate vंबरment of shepe: & they that haue great vंबरment of shepe, muste nedes haue greate store of woll, and we cannot thynke †who shulde make the pryse of woll, but those *that* haue great plentye of shepe. And we do partly knowe that there be some dwellynge

who set no store by tillage,

nor yet by breeding and feeding cattle,

but stock their land with sheep.

[† sign. A .iiij.]

<sup>1</sup> playntyues—C. <sup>2</sup> L(ambeth copy) repeats *des* by mistake.

within these thre shyres, rather then they wyll sell theyr woll at a lowe pryse, they will kepe it a yere or twayne, and all to make it deare, and to kepe it a deare pryse. And by this meanes *the* fyrst prouerbe to be true : The more shepe, the dearer is the woll.

Rather than sell wool at a low price they keep it to make it dear.

So the 1st proverb is true.

In the seconde prouerbe, as we do thynke : The more shepe, the dearer is *the* moton.

The 2nd proverb : The more sheep, the dearer the mutton.

As by reason, the most substaunce of our feadynge was wont to be on beffe, and now it is on motton. And so many mouthes goith to motton, whiche causeth motton to be deare.

We used to feed beef, now it is mutton, and so many eat it that it is dear.

In the third prouerbe, as we do thinke : The more shepe, the dearer is the beffe.

The 3rd proverb : The more sheep, the dearer the beef.

As by reason that breiding and fedyng, is not set by as it hath bene in tymes past ; and where as shepe is kepte vpon the pasture groundes where breadying & fedinge of beffes was wont to be kept<sup>1</sup>, And now there is nothyng kept there but motton.

Beef used to be fed,

now there is nothing but mutton.

The fourth prouerbe : The more shepe, the dearer is the corne.

The 4th proverb : The more sheep, the dearer the corn.

By reason tyllage is \*not vsed, occupyed, and mainteyned as it hath bene before tyme, but shepe kept vpon the grounde, where tyllage was wont to be kept and mainteyned.

[\* A 5]  
Tillage is not now used, but sheep are kept on the ground.

The .v. prouerbe : The more shepe, the skanter is the weyte meate.

The 5th proverb : The more sheep, the scantier the white meat.

By reason tyllage is<sup>2</sup> not vsed, occupyed, and maynteyned, nother mayntenaunce of houses and hospitalytye, where as catle was wont to be fede and brede ; by reason of kepyng of catle, shulde increase whyt meate ; and now there is nothyng kept there but only shepe.

Where cattle were fed, white meat was increased.

The syxte prouerbe : The more shepe, the fewer egges for a peny.

The 6th proverb : The more sheep, the fewer eggs for a penny.

<sup>1</sup> The Cambridge copy repeats ' & where as shepe is kept vpon the pasture groundes, where bredyng and fedyng was wont to be kept.'

<sup>2</sup> it—L.

Poultry was bred  
by cottagers :  
now there is  
nothing but  
sheep.

By reason cottages go downe in the contre, where  
as pultrye was wont to be breade and fedde, nowe  
there is nothyng kept there but shepe, which cause  
the egges to be solde for fower a penny.

Thus the six  
proverbs are true.

Thus be the syx prouerbes true, as we do thynke,  
desyringe you to geue hearynge vnto them, and that it  
may be wel amended, for the common welthe of the  
Kyniges poore subiectes.

Three losses  
which make nine.  
1. Fewer plows  
by forty in Oxford-  
shire.

Then haue we thre losses, that maketh nyne.

Each plow  
kept six persons.

The fyrst losse, as we do thinke, there is not so  
many plowes vsed, occupied and mainteyned within  
Oxforthshyre as was in Kynge Henry the Senenth  
tyme, and sens hys fyrste comming there lacketh xl.  
plowes, euery plough was able to kepe vi. persons,  
downe lyinge and vprisynge in hys house, the whiche  
draweth to twelf score persons in Oxfordshyre.

Now there is  
nothing but  
sheep.

These 240 persons  
must liue—  
where shall they  
go?

And where *that* the sayde twelf score persons were  
wont to haue meate, drynke, rayment and wages, pay-  
inge skot and lot to God & to our Kyng, now there  
is nothyng kept there, but onlye shepe. Now these  
twelfscore persons had nede to haue liuing:—whether  
shal they go? into Northhamptonshyre? and there is  
also the lyuinge of twelef score persons loste: whether  
shall then they goo? foorth from shyre to shyre, and to  
be scathered thus abrode, within *the* Kyniges maiestyes  
Realme, where it shall please Almighty God; and for  
lacke of maisters, by compulsion dryuen, some of them  
to begge, and some to steale.

Some of these  
are driven to beg,  
some to steal.

2. Besides keeping  
6 persons,  
every plow gives  
30 quarters of  
grain a year to  
sell,  
and 40 plows,  
each yielding 30  
quarters, make  
1200 quarters  
in each county.

The seconde losse, as we do thinke: That there is  
neuer a plough of the .xl. plowes, but he is able to tyll  
and plowe to certifye syx persons, and euery ploughe to  
sell .xxx. quarters of grayne by the yeare, or els he can  
full yll paye, syx, seuen, eyght poundt by the yeare. xl  
plowes, .xxx. quarters euery ploughe, draweth to two<sup>1</sup>

<sup>1</sup> This "two hundreth" must mean twelve hundred:  $40 \times 30 = 1200$ .

hundreth quarters in Buckingham shyre, two hundreth quarters in Oxfordeshyre, & two .cc. quarters in Northampton shyre, & so forth from shyre to shyre in certayne shyres within *the* Kynges Maiesties Realme of Englande. what shall the twelf two hundreth quarters of corne do in Oxforthshyre? we do thynke it wyll mainteyne the Kynges markettes, and sustayne the Kynges subiectes; and lykewyse in Buckyngham shyre, & also in Northampton shyre and so from shyre to shyre, in certayne shyres wythin the Kynges Magesties Realme. Furthermore it is to be consydered what thys twelf hundreth quarters of corne is able to do within Oxfordshyre, it is able to certifye & suffyce xv. score people by the yere, bread and drynke, & allowe to euery person ij. quarters of weate, and two quarters of malt, by the yere; where as in the fyrst the hole lyuinge of twelf score persons, meate, & drynke, and rayment, vprysyng & downe lyinge, payinge skot and lot to our God, and to our Kyng. And the seconde losse, bread and drynke for .xv. score persons by the yere, whiche the hole nombre draweth to .v. hundreth and .xl. persons in Oxforth shyre; and<sup>1</sup> so in Buckyngham shyre, & so lykewyse in Northampton shyre, and so forth from shyre to shyre wythin the Kynges Maiestyes Realme.

These 1200  
quarters of corn

would keep 300  
persons a year.

The whole second  
loss in Oxfordshire  
draws near 540  
persons.

And yf it be as we do think, *that* there be .iiij. score plowes in euery one of these shires les then there was, then is there *the* lyuyng lost of a thousand & iiij. score persons in euerye one of these foresayde shyres. Thys is the seconde losse, as we do thynke, and call for remedy for it.

It is thought  
there are 80  
plows lost in each  
shire.

The thirde losse, as we do thinke: We do lose in the sayd thre shyres kepyng of houshold and hospitalitey, & maintayning of tyllage and houshold kepyng; we do lacke corne, and also lese our cattell; for where any housholde is kept, there is kept kyne

3. The third loss  
is in households,  
hospitality, and  
tillage.

Every house kept  
kine,

<sup>1</sup> C omits 'and'.

and calves; and of oure kine there commeth mylke, butter and chease; and all this doeth sustayne the Kynges Mayesties subiectes; and for thys we haue nothyng but shepe.

And furthermore, where houtholdes be kept, there is hogges, pygges, and bakon, capons, hennes, duckes, egges, frute, and many other commodities, that is necessary & nedefull to be had for *the* maintenaunce and lyuinge of the Kynges Maiesties poore subiectes to lyue by; and for that we haue nothyng but shepe. This is the thyrd losse.

hogs, poultry,  
and other  
commodities,

for which we  
have only sheep.

The 10th point,  
the Remedy.

A hundred times  
as many plows  
should be kept,  
and as many  
[\* sign. B]  
households as in  
Henry VII's  
time,  
then there would  
be enough.

The .x. is, which we do cal for remedy, and we desyre of God and the Kynges Maiestye, yf it shal please his Highnes to be so good & gracyous vnto his poore subiectes, that there might be in euery shyre & hundred, as many plowes vsed, occupied, and maynteyned, \*as many houtholds kept, as was by king Henry the Seuenth tyme, fyrst commynge. And then vnfayned, as we do thynke, we sholde haue corne ynough, cattell ynough, and shepe ynough; then wil shepe and woll be in more mens handes; we shall haue also white meate ynough, and all thynges necessary. And thus Iesu preserue oure dreade soueraingne Lorde and Kyng!

Two more losses.

1. In Households,  
Tillage, and  
Shooters.

Shepherds are  
but ill archers.

2. The king loses  
in provisions for  
his household,

to the amount of  
5000 marks a  
year.

As we do thynke, we haue two losses more that we haue not spoken: The firste losse is for lacke of houthold kepyng & mayntenaunce of tyllage. It is great decay to artyllary: for *that* do we reken that shepherdes be but yll archers. And as we do further thinke, it leseth the kings Maiesty in prouision for his noble houtholdes, that is to saye, in wheat, malt, benes, mottions, veles, hay and otes, and pultry, & all maner suche prouisions *that* belongeth to hys Maiestyes houtholde, as we do thynke, v. thousande markes by the yeare with *the* left. In a trial as we do thynke, yf it shuld please the Kynges Maiesties offycers to call in hys graces purueyers, & examyne them where they

haue had within their tyme for his graces prouisions of his warres, & for his Maiestyes housholde, where as there is nowe nothyng to be gotten : for they that kepe the sayde lazdes, hath put the foresayde landes to pastures, \*themself byeth all maner of grayne & corne to kepe theyr housholde with all.

Those who keep the lands, and have put them to pasture, [\* sign. B. ij.] buy grain to keep their household.

Furthermore, yf it shall please the Kinges Highnes, and hys noble counsell, for to haue a further tryall of thys matter, and to assure it to be true, take al craftes men dwelling in cyties & townes, daye laborers that laboreth by water or by lande, cottygers & other housholders, refusing none, but only them *that* hath al this aboundaunce, that is to saye, shepe or wollmasters, and inclosers, the lamentacions of the Kinges Maiestyes subiectes will make any true herted body to seke & call for remedy, whiche we beseeche *the* Lorde to amende. Amen.

Take all craftsmen, and all labourers,

and their lamentation will make a true man call for remedy.

Furthermore, as we do thinke, this Realme doeth decaye by thys meanes : It is to vnderstande and knowen, *that* there is in England, townes and villages to the number of fifty thousand & vpward, & for euery towne and vyllage,—take them one with an other throughout all,—there is one plowe decayed sens the fyrste yeare of the raigne of kynge Henry the Seueuth. And in som townes and vyllages all the hole towne decayed sens that time ; and yf there be for euery towne and village one plough decayed, sens the first yeare of the raygne of kyng Henry the Seuenth, then is there decayed .l. thousande plowes and vpwarde.

In each of 50,000 towns, one plow is decayed since the 1 Hen. VII,

The \*whiche .l. thousande plowes, euerye ploughe were able to mainteine .vi. persons : That is to saye, the man, the wyfe, and fower other in his house, lesse and more. .l. thousande plowes, six persons to euery plough, draweth to the number of thre hundred thousand persons were wont to haue meate, drynke, and rayment, vprysing and down lyinge, paying skot and

[\* sign. B. iij.] which 50,000 plows represent a loss of 300,000 persons,

who paid scot and



lot to God and  
the king.

Some are driven  
to beg, some to  
steal, and are  
hanged.  
Thus the realm  
decays.

We pray you,  
King and Council,  
remedy these  
evils!

lot to God, & to the Kyng. And now they haue nothyng, but goeth about in England from dore to dore, and axe theyr almose for Goddes sake. And because they will not begge, some of them doeth steale, and then they be hanged, and thus the Realme doeth decay, and by none other wayes els, as we do thynke. Besechynge your Hyghnes (of your moste noble grace) and honourable lordshyppes, the premisses tenderly considered before you in examinacion vpon *the* premisses, that we may haue a remedy in this behalf. And we shall dayely praye for the conseruacion of your Highnes, and for your ful noble lordshyppes.

Finis.

¶ Imprinted at London in  
Pouls churchē yearde  
at the sygne of Saynet  
Austen by Hengh Syn-  
gelton<sup>1</sup>.

<sup>1</sup> Dibdin's *Ames* gives dates for Singleton from 1553 (or 1550 according to Herbert's notes), and says that Singleton died in 1592-3. The date of the present tract cannot therefore be earlier than 1550, or later than 1553, when Edward VI, to whose Council it is evidently address, died.—F.

## N O T E S.

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p. 36. *Sic Articles*.—These celebrated Articles are found in the “Bloody Statute,” 31 Hen. VIII. cap. 14. They run:—1. That in the most blessed Sacrament of the Altar, by the strength and efficacy of Christ’s mighty word (it being spoken by the priest) is present really under the form of bread and wine, the natural body and blood of our Saviour Jesus Christ, conceived of the Virgin Mary; and that after the consecration there remains no substance of bread or wine, nor any other substance, but the Substance of Christ God and Man.

2. That the communion in both kinds is not necessary *ad salutem* by the law of God to all persons: and that it is to be believed and not doubted of, but that in the flesh under the form of bread is the very blood, and with the blood under the form of wine is the very flesh as well apart as though they were both together.

3. That priests, after the order of priesthood received as afore, may not marry by the law of God.

4. That vows of chastity or widowhead by man or woman made to God advisedly, ought to be observed by the law of God; and that it exempteth them from other liberties of Christian people, which without that they might enjoy.

5. That it is meet and necessary that private Masses be continued and admitted in the King’s English Church and congregation, as whereby good Christian people ordering themselves accordingly, do receive both godly and goodly consolation and benefit; and it is agreeable also to God’s law.

6. That auricular confession is expedient and necessary to be retained and continued, used and frequented in the Church of God.—*Statutes at Large*, ii. 149, ed. 1811. Commissions were issued to the Archbishops, Bishops, &c., to execute the Act, and to them powers were given to take and burn books containing matters contrary to it. The Act was to be read quarterly in all churches.

p. 62. *Outbreak in 1536-7*.—On the 2nd of October, 1536, when the Ecclesiastical Commissioners were to hold their visitation at Louth,

they found a great body of peasantry in arms, clamouring for their holidays; and proclaiming that they were gathered together for the maintenance of the faith, which was about to be destroyed. So far from Henry having finished his "godly purpose without bloodshede" of his "poore communes" (p. 63) he "wrote to Norfolk on the 22nd February, to 'cause such dreadful execution to be done upon a good number of the inhabitants of every town, village, and hamlet, that have offended in this rebellion, as they may be a fearful spectacle to all others hereafter that would practise any like matter.' A priest and a butcher at Windsor were hanged for expressing sympathy with the Northern rebels."—*Knight's Crown Hist. of Eng.*, p. 198, 200.

pp. 64—68. *The Bible*.—It was in 1536 that the Vicar-general's injunctions directed every parish priest to place a copy of the whole Bible in his church. These copies were all based upon Tyndal's translation. The bishops, although they had undertaken to supply a version which should suit Catholic orthodoxy, left their work untouched. In 1539 Taverner's Bible appeared. This contained a summary of things in Holy Scripture. "The priesthood was denied; masses and purgatory were ignored; the sacraments were described as nothing but outward signs." This led to the sale of unauthorized editions being forbidden, and after some discussion "a temporary limitation was imposed, perhaps wisely, upon its indiscriminate use." "It was wrangled over in ale-houses and tap-rooms. It was disfigured 'in rhymes, printed ballads, plays, songs, and other fantasies.' Scandalous brawls and controversies disgraced the churches where it was placed for the people to read."—*Froude*, iv. 288—291. In the 34 and 35 Hen. VIII. cap. 1, the Bible was forbidden to be read in English in any church. Women, artificers, prentices, journeymen, servingmen, husbandmen, and labourers, might read the New Testament in English. Nothing was to be taught or maintained contrary to the King's Instructions.—*Stat. at Large*, ii. 201.

p. 67. *Thomas Cromwell, Earl of Essex*.—It was "with the private connivance of Cromwell" that "other editions" of the Bible than those authorized were put in circulation (*Froude*, iv. 289), and this was not forgotten when he stood attainted of treason. Not only was he accused of having "been the most corrupt traitor and deceiver of the king and the crown that had ever been known in his whole reign," but it was alleged that "he being also a heretic, had dispersed many erroneous books among the king's subjects, [the Bible probably being one.] particularly some that were contrary to the belief of the sacrament." On the day of his beheading, 28th July, 1540, Henry married Catherine Howard.<sup>1</sup> Six years later one of the very party, to serve which he had risked (and lost) so much, was found to brand him as "a traytoure!"

p. 69. *Boulogne*.—On the 18th of September, 1544, Henry made his solemn entry into Boulogne.—*Knight*, p. 211. See also *Froude*, iv. 352.

<sup>1</sup> *Knight's Crown Hist. of Eng.*, p. 206.

p. 75. *The Holy Maid of Kent*. Elizabeth Barton.—“About the time of Easter, in the seventeenth yeere of the Reigne of King Henrie the Eight, it hapned a certaine maiden . . . servant to one Thomas Kob . . . to bee touched with a great infirmitie in her bodie, which did ascende at divers times up into her throte, and swelled greatly” (*Lambarde's Perambulation*, p. 170, rep.). Her history is well known. “In the ende her dissimulation was deciphered, her Popish comforters were bewraied, the deceived people were well satisfied, these daungerous deceivers were worthely executed, and the Devill their Master was quite and cleane confounded.”—*Ib.* p. 175.

p. 75. *The Rood of Kent* was at Boxley. It is thus described by Lambarde (p. 205):—“It chaunced (as the tale is) that upon a time, a cunning Carpenter of our countrie was taken prisoner in the warres betweene us and Fraunce, who (wanting otherwise to satisfie for his ransome, and having good leysure to devise for his deliveraunce) thought it best to attempt some curious enterprise, within the compasse of his owne Art and skill, to make himselfe some money withall: And therefore, getting together fit matter for his purpose, he compacted of wood, wyer, paste and paper, a Roode of such exquisite arte and excellencie, that it not onely matched in comelynesse and due proportion of the partes the best of the common sorte; but in straunge motion, variety of gesture, and nimblenes of ioints, passed al other that before had been seene: the same being able to bow down and lift up it selfe, to shake and stirre the handes and feete, to nod the head, to rolle the eies, to wag the chaps, to bende the browes, and finally to represent to the eie, both the proper motion of each member of the body, and also a lively, expresse, and significant shew of a well contented or displeased minde: byting the lippe, and gathering a frowning, froward, and disdainful face, when it would pretend offence: and shewing a most milde, amyable, and smyling cheere and countenance, when it would seeme to be well pleased.”

p. 91. *Queen Catherine Howard*.—In 1541, Henry solemnly offered thanksgiving for the happiness he found in the society of this his Fifth Queen. On the 12th of February, 1542, she and lady Rochford were executed.

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## GLOSSARIAL INDEX.

NOTE. B. = Bailey's Dictionary; P. = Kersey's Phillips; Bp Bale = The Select Works of Bp Bale, Parker Society; P.P. = Promptorium Parvulorum; H. = Halliwell's Arch. Dict.

My best thanks are due to the Rev. Dr Rock and the Rev. W. W. Skeat for their valuable assistance in the explanation of certain words in this Glossary.

- ADDYCTE, 47, to give over to.  
 Aduaylable, 8, available.  
 Adulterine, 92, adulterate, counterfeit, corrupt.  
 Alekmist, 77, alchemist.  
 Amners, 34, almoners.  
 Archers, 100, archers.  
 Artillary, 100, artillery, the art of shooting with bows and arrows.  
 Assityng, 2, to ascite, to call, to summon.  
 Attender, 96, to attend to.  
 Auncientie, 9, antiquity. *Antiquitie: auncientie. Cooperi Thesaurus*, in v. *antiquitas*.  
 A wiles, 68. ? In the mean time.  
 Axe, 101, ask.  
 Bedemen, 13. "Bedes men, alms-men, who pray'd for their founders and benefactors." *P. Bede* (A.S.), a prayer. "Your bedman, & seruant to be vttermust off my poor power, Andrew Boorde." *Furnivall's Andrew Boorde's Dyetary*, p. 62. "And the bedeman shall pray for the soul of the dead." *Toulmin Smith's English Gilds*, p. 230.  
 Bloudsupper, 5, a murderer, a bloodsucker. "Poor creatures that should be killed by these unsaciate *blood-soupers* for his truth's sake." *Bp Bale*, p. 324.  
 Bopipe, 68, bo-peep.  
 "Some of the byshoppes at your injunctyons slepe,  
 Some laugh and go bye, and some  
 can play *boo pipe*."  
*Bale's Kynges Johan*, p. 97.  
 Brenninge, 41, burning.  
 Bruit, 64, brute.  
 Bryres, 56, briers.  
 Buggery, 63, "the coupling of one man with another, or of man or woman with a brute beast." *P*.  
 Bunme court, 48, a court which took cognizance of certain vices.  
 By, set by, 97, thought much of.  
 Cannebes, 75, canopies. "*Canabie, canabie*, a corruption of canopy." *Jamieson*: who adds that it is used in Inventories. "*Canopeum, reticulum subtile factum de canabo*. The Canope alluded to in the Promptorium was very probably the *Umbraculum* under which the Sacred Host was carried in the

- procession on Palm Sunday. Canapy to be borne over the sacrament." *P. P.*, note 3, p. 60. Lat. *cannabis*, hemp. "Going processions with canopy, cross, and pix." *Bp Bale*, p. 524.
- Carp, 88, talk, or speak.
- Catyuite, 23, captivity.
- Chaplaynes, 42. "Rydyng Chaplaynes"?
- Church ales, 41; a church ale was a feast in commemoration of the dedication of a church.
- Cocke of haye, 65, "a conical heap of hay." *H.*
- Coelginers, 66. Bailey has "coeliginous," but whether the "Coelginers" were a "heaven-born" sect or what they were I don't know. Cp. "Then was there an infinite table of . . . . . sententioners and summists, of *colliginers* and canonists." *Bp Bale*, p. 350. Canon Rock suggests that the writer meant Cnldees. "The Cnldees were a sect of religious monks, remarkable for their religious exercises of preaching and praying." *B.*
- Cohybyted, 25, hindered.
- Commessacyon, 53, commessation, revelling.
- Coopes, 75, Copes. "Cope, a sacred vestment which is directed by the Canons of the Reformed Church to be worn at the celebration of the communion in cathedral and collegiate church." *P. P.*, note 2, p. 91.
- Corporace, 75, "Corporasse, or corporalle. *Corporale*." *P. P.* "The term corporas, *corporalis palla*, denotes a consecrated linen cloth folded and placed upon the altar in the service of the mass, beneath the sacred elements." *Ib.* note 3, p. 93. The corporal "is the name given to the linen cloth which is spread over the body (*corpus*), or consecrated bread, in the communion." *Hook's Church Dict.*, 9th ed. So that the corporas or corporal is placed *beneath* the Elements by the Roman Catholic, *over* them by the Protestant.
- Conentes, 80, convents.
- Counfortable, 28, comfortable.
- Counforte, 28, comfort.
- Covent, 27, convent.
- Cream, 41, *Chrism*. Oil consecrated in the Romish and Greek churches by the bishop, and used in baptism, confirmation, orders, and extreme unction. "At the last crept in the worshipping of relies and shrines, with holy oil and *crecam*." *Bp Bale*, p. 320.
- Crwetes, 75, cruets. "Crewet or crevet, a little vial, or narrow-mouth'd glass." *P.* "Copes, crosses, *cruets*." *Bp Bale*, p. 259.
- Cukkoldrie, 6, the act of adultery.
- Cure, 29, care.
- Dashed, 8, condemned, confounded. "The gentlemen were *dashed* by his earnestness." *Gina's Baby*, p. 175.
- Debities, 85, deputies. "These spiritual tyrants shall examine you . . . and so deliver you up unto kings and *debities*." *Bp Bale*, p. 6.
- Demaner, 61, demeanour.
- Demurante, 32, grave in behaviour.
- Deplorate, 46, deplorable.
- Dimitted, vii, dismissed, sent away.
- Distayne, 81, to stain.
- Dwe, 77, due.
- Dome, 53, dumb.
- Drafsacke, 15, a sack full of draf, a place of extreme wickedness. "Proving their traditions to be most vile *draff*, and most stinking dregs of sin." *Bp Bale*, p. 285.

- Effectuously, x, effectually, completely. "That Esay . . . . with all other prophets, warneth aforehand to follow concerning Christ and his church, this mystery declareth *effectuously* fulfilled." *Bp Bale*, p. 253.
- Elbowhangers, 77, hangers-on, parasites.
- Enmious, ix, inimical, hostile. "Enmy. *Inimicus, hostis, hostilitas.*" *P. P.*
- Enmying, ix. See *above*.
- Enprysonmente, 36, imprisonment.
- Enterdite, 5, interdict.
- Entermedlyng, xi, intermixing.
- Eretik, 9, heretic.
- Estatute, 30, statute.
- Exquysytely, 22, exquisitely, accurately, with great exactness; minutely. "Exquisite, curious, choice; also exact, or carry'd on to the utmost height." *P.*
- Externe, 91, external.
- Felles, 85, fells, skins, or hides.
- Fiftenes, 3, fifteenths.
- Frayd, 84, afraid.
- Fumish, viii, angry, fractious.
- Fumishly, ix, angrily.
- Galpe, 81, gape, gape after, to look forward to.
- Gnatonical, 77, 89, gnat-like.
- Goulafres, 10. See note, p. 10.
- Gyldes, 75. "Gild, guild, or geld, A company of men united together, with laws and orders made among themselves." *P.* In the text it means the house in which a religious fraternity or gild lived.
- Habilite, 65, ability, power, or authority.
- Habitacle, 24, a dwelling or habitation. "And he shall finally sup with me and with him in the eternal *habitable* of God . ." *Bp Bale*, p. 296.
- Holle, 50, whole.
- Hyed, 50, hide.
- Hylded, 85, skinned. *Hild*, to skin. *H.*
- Illected, 6, enticed. "Illectus. Pleasantly prouoked, intised, tolled, allured." *Cooperi Thesaurus*.
- Impe, 92, a shoot of a tree, a cutting, a bud. "He shall be called . . . a lamb of Christ's fold, a sheep of his pasture, a branch of his vine, a member of his church, an *imp* of his kingdom." *Bp Bale*, p. 292. The same writer uses it in a bad sense: "O very *imps* of hell, and limbs of the devil!" p. 441.
- Importune, 84, importunate.
- Iorney, 71, journey.
- Iote, 83, jot. "One *iote*, or one title of the law shal not scape." *S. Mat. v. 18, Geneva New Test.* 1557.
- Iour, 92, your.
- Ioywell, 39, jewel.
- Kyre Eleyson, 69. Kyrie Eleison, the Greek of "Lord, have mercy" upon us.
- Latward, 71. "Lateward, that is of the latter season." *P.*
- Lazer, 77, leprous, afflicted with leprosy.
- Leas, 80, lease.
- Liripope, 84. The following is Mr Halliwell's note on this word: "*Liripoops*. An appendage to the ancient hood, consisting of long tails or tippets, passing round the neck, and hanging down before,

reaching to the feet, and often jagged. The term is often jocularly used by writers of the 16th and 17th centuries. 'A lirripoop *vel* lerripoop, a silly empty creature, an old dotard.' *Milles, MS. Devon Gloss.* A priest was formerly jocularly termed a *lerry-cum-poop*. It seems to mean a trick or stratagem, in the *London Prodigal*, p. 111. 'And whereas thou takest the matter so farre in snuffe, I will teach thee thy *lyrrripups* after another fashion than to be thus malepertlie cocking and billing with me, that am thy governour.' *Stanhurst*, p. 35.

Theres a girle that knowes her *lerripoope*.

*Lillie's Mother Bombie*, 1594."

"I believe the scarf grew out of the fur tippet or almuce, or amess, not the *liripipe* of the hood." *Church Times*, 16 Dec., 1870, p. 536, col. 4.

Lobies, 14, looby, a silly awkward fellow. *H.*

Loutes, 15, clownish unmannerly fellows.

Lubbers, 15. "Abbey loutes or lubbers." Drudges, lazy drones. "Idul *abbey-lubbarys*, wch are apte to no thyng but . . . only to ete and drynke." *England in Henry VIII's Time*, p. 131, ed. J. M. Cowper.

Lubricite, 7, lubricity, incontinency. See *Lubricus*, Cooperi The-saurus.

Lyuelyeke, 66, lively, living.

Maiheme, 8. "Maihem or Mahin, (F.) maim, wound, hurt." *P.*

Morowe mas, 42. Morrow Mass.

I am indebted to Canon Rock for the following:—"Time out of mind and while the Anglo-Saxons ruled, there used to be in every monastery, cathedral, and large church, in this land, two altars in every chancel: one, the high or large altar; the

other, a smaller altar, not always but usually at the back of this larger altar. Every morning at dawn, and at the end of matins, a mass was sung or said at the smaller altar, and the monk or priest who celebrated it was termed the morrow-mass priest; and the altar itself was named the morrow Mass Altar." "The morrow masse awter" of Faversham had, in the 4th Henry VIII. "Imprimis. A chisebyll of grene damaske with lyones of golde with apparel for the preest. It. A masse boke preynted.

It. 2 cruets of pewter.

It. 2 kandylystykks and a small of laton standing upon brods herse."

*Jacob's Faversham*, p. 164.

And *Thomas Sterkey* of Faversham gave, in 1525, "to the *morrow masse* aultar every weeke a penny after my decease the space of one whole yere." *Lewis's Fun. Mon. in the Church of Faversham*, p. 37.

Mortwaries, 85, mortuaries.

"Mortuary, in the English ecclesiastical law, is a gift left by a man at his death to his parish church, in recompence of personal tithes omitted to be paid in his lifetime. By 21 Hen. VIII. c. 6, mortuaries were commuted into money payments." *Hook's Ch. Dict.*

Mought, 5, might.

Muncke penycons, 42, ? Monk pensioners.

Murmuracyon, 26, murmur, or murmuring.

Mysse, 78, a wrong, that which is amiss.

Nasturcium, ix, the herb nose-smart.

Noble, 80, a coin of the value of 6s. *Sd.* "And in thys yere (1527) begane the golde to ryse, as the angell *nobyll* at vijs. and in November after it was made vijs. *vjd.*" *Grey Friars' Chron.*, p. 33. The angel also was of the value of 6s. *Sd.*

- But when "a phisician called Doctour Nicholas," received "xx Angells, vij li. x. s." the angel was worth 7s. 6d. *Furnivall's Andrew Boorde*, p. 49, note 1.
- Obeisant, 81, obedient.
- Obeysaunce, 90, obedience.
- Other, 46, either.
- Outwarde, 33, outer, St Matt. viii. 12. Comp. "Thou shalt be thrown forth into *exterior* darkness, where shall be weeping." *Bp Bale*, p. 294.
- Palme trees, 78. The Sallow, *salix caprea*, is commonly known in the Midland counties as the Palm.  
 "For look here, what I found on a *palm-tree*."  
*As You Like It*, iii. 2.  
 "Ye leaning *palms*, that seem to look  
 Pleased o'er your image in the brook."  
*Clare's Rural Life*, p. 62.
- Pax, 75. A small tablet of silver, or some fit material, often very elaborately ornamented, by means of which the kiss of peace was, in the mediæval Church, circulated through the congregation. "Crucifixes . . . borne aloft in their gaddings abroad, with the religious occupings of their *paxes*, cructs, and jewels which be of silver." *Bp Bale*, p. 526.
- Pewling, viii, ix, x. "To pule, to piep or cry as chickens and young birds do. To whine, to cry, to whimper." *B*.  
 "To speak *puling*, like a beggar at Hallowmas."  
*Two Gent. Ver.* ii. 1.  
 "A wretched *puling* fool,  
 A whining mammet."  
*Rom. & Jul.* iii. 5.
- Persequotion, 73, persecution.
- Personagyres, 34, parsonages. "So
- is there in *personages*, some sente from Christ as shepherds to fede, and some from the deuyll as theues to deuoure." *Lever's Sermons*, p. 66, Arber's reprint.
- Pettyt, 87, petty, little, small, paltry.
- Pixes, 75. Pyx, the vessel or box in which the Host is kept. Irreverently called "god-boxes" by Bp Bale, p. 527.
- Pours, 63, powers, authorities.
- Prescripte, 41, prescribed, appointed. "The dwellers of the earth . . . practised worshippings besides the *prescripte* rules of God's word." *Bp Bale*, p. 495.
- Prist, 90, priest.
- Prodicessours, 77, predecessors.
- Prophanate, xi, to profane.
- Prossession, 69, ? procession.
- Prystishe, 45, priestish.
- Pue, 67, pew.
- Pyed, 79, black and white, parti-coloured. "These [freres of the Pye] would appear to be not very different from the Carmelites; they were called *Pied Friars* from their dress being a mixture of black and white, like a magpie." *Pierce the Ploughmans Crede*, ed. Skeat, p. 35. "The *Pied Friars* had but one house, viz. at Norwich. We find the expression 'Fratrum, quos *Freres Pye* veteres appellabant' in Thom. Walsingham, *Hist. Anglicana*, vol. i. p. 182; ed. H. T. Riley. See also Notes and Queries, 4 S. ii. 496." *Additional Note to the same*.
- Pynfolde, viii, a place of confinement.
- Quest, 9, inquest, a jury of citizens.
- Realyfe, 70, relief.
- Renomed, 82, renowned.



Reuaile, 69, reveal.

Royalme, 78, realm.

Salve, 28, to apply salve to, to heal.

Scala celi, 41, Scala Coeli, the name given to "a vision of St Bernard's, who, while celebrating a funeral mass, saw the souls for whom he was praying going up to heaven by a ladder." Sometimes the term "is used merely as one of mystical figurative names of the Madonna." *Political and Rel. Poems*, xxvii.

Scase, 29, scarce. See *England in Hen. VIII's Time*, scasencess, p. 223.

Seased, 80 (Law term), seized of, possessed of.

Sence, 41, cense, to perfume with incense.

Sensoures, 75, censers.

Serpentical, 74, serpent-like, devilish.

Shauelings, 41. A term of contempt for a priest. "This Babylonish whore, or disguised synagogue of *shorplings*, sitteth upon many waters or peoples." *Bp Bale*, p. 494. *Shavelings* of prodigious beastliness in lecherous living under the colour of chastity. *Ib.* p. 497.

Shepe, 75, ? ship. "SCHYPPE, vesselle to put yu rychel (incense)" *P. P.* "*Acerra*, a *schyp* for cense," *Nomiale* MS. xv. Cent. quoted by Halliwell. "He gave a senser, and a *shyp* of clene syluer, *argento puro*." *Horman*, *P. P.* p. 80, note 6. Sir T. More uses the word, but the reference I have not at hand. Canon Rock tells me he thinks *sheep* is meant. He says, "It was usual in those times for people having nothing better to bestow in charity, to give certain animals to the church that therewith some money might arise, to be expended for charitable

purposes: cows, for instance, that their milk, butter, and cheese might produce sums for charity; and sheep for the wool they produced, to be sold for the like purpose. The ship for incense is not a thimble, but an oblong shallow kind of box for holding incense. This appliance is now called 'an incense boat,' and in Latin is known as the *navicula*, because shaped in the form of one, but without any mast."

Skanter, 96, scarcer.

Skantite, 95, scarceness.

Skot and lot, 98, "a customary contribution laid upon all subjects according to their ability." *B.* "Every freeholder is bound to be a partaker in *lot*, which is liability to hold office, and in *scot*, which means contribution to taxes and other charges." *Riley's Mem. of London*, p. 601, quoted in *Smith's English Gilds*, p. 474.

Sloughtfully, 3, ? cruelly, murderously.

Sparceled, vi, enlightened, illuminated.

Stear, 24, 63, stir.

Steruelynges, 64, starvelings; lean, hungry-looking persons.

Strawne, x, strewn, scattered.

Summer, 17, summoner. See note, p. 17.

Swynescotes, 78, pig-sties.

Swynged, 69, repeated frequently and loudly.

Tapurs, 75, tapers.

Thouchyng, 96, touching.

Towardnes, 81. "Child of great towardness," child of great promise.

Trentalles, 41, Trental, a service of thirty masses for the dead, usually celebrated on as many different days. "On þe morwe to seie

- a *trent* of masses." *Smith's English Gilds*, p. 8. "Pour out your *trental* masses, spew out your commendations." *Bp Bale*, p. 330. See *St Gregory's Trental*, Pol. Rel. and Love Poems.
- Vmbermente, 96, number. Vmber, number. *II*.
- Vnaxed, 8, unasked.
- Vndoutely, 65, undoubtedly.
- Voult safe, 85, vouchsafe. Another form of the word is *withsave*. "For unto them only are his heavenly verities known, to whom he *withsaveth* to open them." *Bp Bale*, p. 473.
- Vre, 51, ure, use.
- Vtylite, 3, utility.
- Wayne, 23, vain.
- Warmoll, 9. See note, p. 9. Mr Skeat says: "*Warnmall*. I know nothing of it, and can only guess. It may be *warn*, to admonish, and *mall*. But what is *mall*? It can hardly be Fr. *mal*. It can hardly be *Mall* or *Moll*, a common name for frail ones. Nor am I satisfied with a friend's guess that the word is *warn-em-all*! It's too clever. And as if to make that which is dark darker, I find A.S. *worn-mælum* (spelt *wearn-mælum* in Bosworth) means *by companies*. Cf. O.E. *flockmel*, by flocks, and *piece-meal*, by pieces."
- Weyte, 97, white.
- Wringyng, 77. "To wrest . . . to *wring* . . . to force the sense of a passage or author." *P*.
- Wyllouse, 78, willows.
- Wyte, ix, blame, reproach.
- Yie, 1, eye.
- Yower, 75, ewer.
- Ypochrise, 11, hypocrisy.
- Ypochrite, 11, hypocrites.

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# The Astrolabe.

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A Treatise on  
**The Astrolabe;**

addressed to his son Eowys

by Geoffrey Chaucer.

A.D. 1391.

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EDITED FROM THE EARLIEST MSS.

BY

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LATE FELLOW OF CHRIST'S COLLEGE, CAMBRIDGE.

"His Astrelabie, long ynge for his art."—*Canterbury Tales*, A. 3209.

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## P R E F A C E.

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### DESCRIPTIONS OF THE MSS.

§ 1. THE existing MSS. of the "Astrolabe" are still numerous. I have been successful in finding no less than *eighteen*, sixteen of which I here describe.<sup>1</sup> It is remarkable that, although many printed editions of the treatise have appeared, no first-class MS. has ever hitherto come under the notice of any one of the various editors. This point will appear more clearly hereafter.

§ 2. A.—MS. Dd. 3. 53 (part 2) in the Cambridge University Library. The "Treatise on the Astrolabe" begins at fol. 212 of the MS. considered as a whole, but the folios are now properly renumbered throughout the treatise, as in the present volume. The MS. is of vellum, and the writing clear and good, with a great number of neatly drawn diagrams, which appear wherever the words "lo here thi figure" occur in the text. This MS. I have made the basis of the text, and it is followed with minute exactness except when notice to the contrary is given in the Critical Notes. Wherever any change of even slight importance is made, notice is drawn to the alteration by the use of square brackets.

This MS. is of considerable importance. The hand-writing

<sup>1</sup> Two were kindly pointed out to me by Mr Bradshaw after this Preface was in type. Both are imperfect. They are (1) MS. Bodley 68, ending with Part ii. sect. 36, chiefly remarkable for containing the title "Bred and Mylk for children"; and (2) MS. E Museo 116, in the Bodleian Library, which contains a fragment of the latter part of the treatise on vellum, in the hand-writing of the scribe of MS. Camb. Gg. 4. 27.

exactly resembles that in MS. B., and a comparison of the MSS. leads to the following results. It appears that MSS. A. and B. were written out by the same scribe, nearly at the same time. The peculiarities of spelling, particularly those which are faulty, are the same in both in a great many instances. It is also clear that the said scribe had but a very dim notion of what he was writing, and committed just such blunders as are described in Chaucer's Lines to Adam Scrivener, and are there attributed to "negligence and rape."<sup>1</sup> It is still more interesting to observe that Chaucer tells us that he had to amend his MSS. by "rubbing and scraping" with his own hand; for MS. A. and B. differ precisely in this point, viz. that while the latter is left uncorrected, the former has been diligently "rubbed and scraped" by the hand of a corrector who well knew what he was doing, and the right letters have been inserted in the right places over the erasures. These inserted letters are in the hand of a second scribe who was a better writer than the first, and who was entrusted with the task of drawing the diagrams. The two hands are contemporaneous, as appears from the additions to the diagrams made by the writer of the text. Unfortunately, there are still a good many errors left. This is because the blunders were so numerous as to beguile the corrector into passing over some of them. When, for example, the scribe, having to write "lo here thi figure" at the end of nearly every section, took the trouble to write the last word "vigure" or "vigour" in nearly every instance, we are not surprised to find that, in a few places, the word has escaped correction. It further appears that some of the later sections, particularly sections 39 and 40, have not been properly revised; the corrector may very well have become a little tired of his task by the time he arrived at them. It must also be remembered, that such blunders as are made by a scribe who is not clear as to the meaning of his subject-matter are by no means the blunders which are most puzzling or most misleading; they are obvious at once as evident blotches, and the general impression left upon the mind by the perusal of this MS. is—that a careless scribe copied it from some almost perfect original, and that his errors were

<sup>1</sup> I. e. haste, rapidity. Cf. "Rydyng ful *rapely*;" Piers the Plowman, B. xvii. 49.

partially corrected by an intelligent corrector, who grew tired of his task just towards the end.

The order of the conclusions in Part ii. differs from that in all the editions hitherto printed, and the MS. terminates abruptly in the middle of a sentence, at the words "howre after howre" in Conclusion 40. A portion of the page of the MS. below these words is left blank, though the colophon "Explicit tractatus," &c., was added at the bottom of the page at a later period.

Certain allusions in the former part of the MS. render it probable that it was written in London, about the year 1400.

§ 3. B.—MS. E Museo 54, in the Bodleian Library, Oxford. This is an uncorrected duplicate of the preceding, as has been explained, and ends in the same way, at the words "howre after howre," followed by a blank space. The chief addition is the rubricated title—"Bred and mylk For childeren," boldly written at the beginning; in the margin are the following notes in a late hand—"Sir Jiffray Chaucer"—"*Dominus* Gaufredus Chaucerus"—"Galfredi Chauceri Tractatus de Ratione et vsu Astrolabij ad Ludouicum filium." At the end is the note—"Liber Francisci Beyley, 1637. Franc. Bayley, Noui Collegij Socius, Anno Dom., 1637. Ned. Tournier."

Before I undertook the present edition, a transcript of part of this MS. had been made for the Early English Text Society, which afterwards came into my hands. A portion of the text was "set up" from it, but the proof sheets were corrected by MS. A. I mention this to show how *closely* the two MSS. resemble each other in spelling. It is very seldom that such a course is practicable; but in this instance it occasioned no difficulty.

§ 4. C.—MS. Rawlinson, Misc. 1370 (leaves 22—42), in the Bodleian Library, Oxford.

This is a beautifully written MS., on vellum, with 38 pages of text, and 4 blank pages. It has the conclusions in the same order as the preceding, six well-executed diagrams, and corrections on nearly every page. It is of early date, perhaps about A.D. 1420, and of considerable importance. It agrees closely with the text, and, like it, ends with "howre after howre." Some variations of spelling are



to be found in the Critical Notes. In this MS. the "Conclusions" are numbered in the margin, and the numbers agree with those adopted in this edition.

§ 5. D.—MS. Ashmole 391, in the Bodleian Library. This contains several tracts of very different dates—including tracts on astrology, calendars, tables, a *printed* tract, a tract on houses and horoscopes, a Latin tract with a very carefully painted picture resembling that given as fig. 19 in this volume, and finally, Chaucer's "Astrelabie." This is an old and well-written copy on vellum, with illuminated border on the first page, fair diagrams, blue and flourished capital letters, &c., and is much faded. It begins—"Lite lowys my sone, I aparceyue wel by certeyn euydences"—and contains the following, viz. all of Part i; Part ii, sections 1, 2, and part of 3, down to "18 degrees of heighte taken bi myn" in l. 30, after which several leaves are lost; then comes sect. 25, beginning at l. 17—"but for ensaumple; For wel I woot þe latitude of Oxenford," &c., followed by sections 26, 27, 28, 29, 30, and part of 31, down to l. 9—"The maner of diuysion of þe." The rest is torn away. I have made but little use of this MS., on account of its being so imperfect.

§ 6. E.—MS. Bodley 619. This MS., like B., has the title—"Brede and Milke for children." Like other good MSS., it ends sect. 40 with "houre after houre." But after this, there occurs an additional section, which is probably not genuine, but which I have printed here (for the sake of completeness) as section 46; which see.

There are some Latin notes in this MS. which are worth notice. The first is a note on Chaucer's words in Part i, sect. 10, l. 14, that "the sonne dwelleth ther-for neuere the more ne lesse in on signe than in another," which declares this to be a mistake, for the sun dwells longer in Cancer than in Capricorn; an observation which is perfectly correct.

Again, at the end of sect. 3 in Part ii, we have a Latin paragraph, beginning—"Nota, quod si quot miliaria sunt inter duas regiones"—and ending—"dando 100. miliaria. Idem facies de longitudinibus, si fuerint diuerse, & latitudines eedem." This is a quotation from Messahala (see p. 97), and is very interesting, be-

cause it directly connects Chaucer's translation with the Latin text of Messahala.

At fol. 53, back, we find another Latin note, having reference to Part ii, sect. 39, as follows :—

“Nota ; si vis scire per quot gradus currit Almicantatium, computa almicantarath, incipiendo ab orisonte vsque ad Cenith, et per numerum illorum diuide 90, et numerus quociens ostendet tibi per quot currat.

“Longitudines autem quarundam regionum, idem elongaciones circulorum earum meridianorum a meridiano vltime regionis habitabilis in occidente. Et earum latitudines, idem distancias ab equinoxiali circulo, notabimus in quadam tabula.”

This is of some interest, as shewing that the ancients took for their first meridian of longitude the meridian of the last habitable spot which could be reached in proceeding westward. The principle is clear, but the locality vague. Observe that the latter part of this note is also from Messahala ; see p. 97.

At fol. 15, there is a note on Part i, sect. 21, l. 12, where Chaucer instances the stars Aldebaran and Algomeysa. To these are here added the stars “Menkar,” “Algezve,” and “cor leonis,” that is to say,  $\alpha$  Ceti,  $\alpha$  Orionis, and  $\alpha$  Leonis ; with the remark—“nota : þat þese 5 sterres ben meridional fro þe ecliptic, and septentrional fro þe equinoctial, secundum astrolabium colleg. de Merton.” Merton College, it thus appears, possessed an Astrolabe on which the five above-named stars were represented.

At fol. 21 is an additional section, not found elsewhere, which is printed in the Additional Notes ; see p. 81. This conclusion has some claims to our notice, because, whether genuine or not, it is translated from Messahala.

§ 7. F.—MS. 424, in the library of Corpus Christi College, Cambridge. Very imperfect, especially at the beginning, where a large portion has been lost. Written in a close hand, late in the fifteenth century, though the thorn-letter (*þ*) appears in it. Begins—“vnderstond well þat þe zodiake is departyd in 2 halfe cerceles as fro þe hede of capricorne”—which is sect. 16 of Part ii without the rubric. Then follow, with rubrics, the entire sections 17—36, the

last of which ends thus, with an additional remark—" & the begynnyng of þe 12 howse is nadyr to þe 6. ¶ To fynde þe howse by þe astrolaby þat is wretin<sup>1</sup> suffyse. Explicit *tractatus astrolabii secundum* chausers, *factus filio suo* lodowyco."

Although the MS. is thus imperfect, we see that the conclusions follow the right order, as in the best MSS.

§ 8. G.—MS. R. 15. 18, in the library of Trinity College, Cambridge. This is a curious and interesting volume, as it contains several tracts in English on astrology and astronomy, with tables of stars, &c. It also contains the picture which I have but imperfectly represented in Fig. 19.<sup>2</sup>

The copy of the "Astrolabe" in this MS. is not a very good one. It is not divided into paragraphs or sections, and occasionally portions of sentences are omitted. It ends with the words—"as well as by the fyxe sterre" in Part ii, sect. 34, l. 14. The conclusions are in the right order, and there are a few diagrams.

§ 9. H.—MS. Sloane 314, British Museum. A late MS. on paper, absurdly said in a note to be in Chaucer's handwriting, whereas it is clearly to be referred to the end of the fifteenth century. Size of page, about 8 inches by 5½. The treatise begins on fol. 65, back, and ends on fol. 106, in the middle of a page, at the end of conclusion 36, like MS. F. It is written in a clear hand, but with pale ink. It has rubrics in red, and some not very well-drawn diagrams. The conclusions are (unless I have misread my notes) in the wrong order, i. e. in the order adopted in the old printed editions.

§ 10. I.—MS. Sloane 261. This is an "edited" MS., having been apparently prepared with a view to publication. Mr Brae has made considerable use of it, and gives, in his preface, a careful and interesting account of it. He concludes that this MS. was written by Walter Stevins in 1555, and dedicated by him to Edward Earl of Devonshire; and that MS. H. was one of those which Stevins especially consulted, because it contains marginal notes in Stevins'

<sup>1</sup> Very indistinct. MS. Addit. 23002 has "ywrytten" here.

<sup>2</sup> I regret to say that my hasty copy of this picture gives merely the general idea of it. The truth is, I was not aware of the marvellous accuracy with which such a wood-engraver as Mr Rimbault can reproduce what is given him, or I would have taken care to copy it more exactly.

handwriting. The date 1555 was assigned to it by Mr Brae after most careful investigation; in any case, it is the latest MS. which I know of. A memorandum shews that this MS. was in Urry's hands in 1712; a fact which is (as Mr Brae points out) not much to Urry's credit, seeing that some of the glaring errors in Urry's edition might have been corrected by consulting Stevins. The contents of this MS. can be so well ascertained from Mr Brae's edition that it is unnecessary to say more about it here. The Conclusions are arranged in the same order as in other MSS. not of the first class. This will be further discussed presently.

§ 11. K.—MS. Rawlinson Misc. 3, in the Bodleian Library, Oxford. On vellum, 49 folios, with rich gold capitals, beautifully ornamented; in a large clear handwriting, with red rubrics. Title—"Astralabium." Begins—"Lityl lowys my sone," &c.—and ends—"For þe mone meuyth the contrarie from other planetys. as yn here epicircle. but in none other maner;" see end of Part ii, sect. 35. Order of Conclusions in Part ii as follows; 1—12, 19—21, 13—18, 22—35; as in other late MSS. There are no diagrams, and the MS., though well written, may perhaps be referred to the latter half of the fifteenth century.

§ 12. L.—MS. Additional 23002, British Museum. A fair MS., on vellum, without diagrams; size of page, about  $7\frac{1}{2}$  by 5 inches. Begins on fol. 3; ends on fol. 28*b*. Contents as follows:—Part i, wanting sections 15—23 inclusive; Part ii, sections 1—12, 19—21, 13—18, 22—35, as in K.; together with additional sections, viz. 41—43; also 44, 45; also 41*a*—42*b*; then 36 and 37, concluding with the words "of 3 howses that folowyn." The second part is thus seen to be nearly complete, although sections 38—40 are missing. See also the Additional Note on Part ii, sect. 3.

§ 13. M.—MS. E. 2 in the library of St John's College, Cambridge. Small MS. on vellum, without diagrams. Size of page, 6 in. by 4 in. Former owner, Wilhelmus Græye. Contents: (*a*) Fol. 1. De septem climatibus expositio (Short treatise in Latin); (*b*) Fol. 2. De astrolabio. The leaves have been misplaced, and bound up in a wrong order, but nothing is lost. If they were properly rearranged, the order of contents of Part ii would be seen to be as follows, viz.

sections 1—12, 19—21, 13—18, 22—35, as in the last MS.; with the additional sections 41—43; also 44, *but not* 45; also 41*a*—42*b*; after which come sections 36—38, the last ending with the words “styke an euen pyn or a were vpriȝt, þe smallere þe better. sette þy pyn be plum-rewle euen”; see l. 6. I have printed from this MS. the last five words of sect. 40; also 41—43, and 41*a*—42*b*; besides collating it for the improvement of the text in sect. 44. I have also been indebted to it for the *Latin* rubrics to the conclusions, which I have not found elsewhere. Several various readings from this MS. appear in the Critical Notes.

§ 14. N.—MS. Digby 72, in the Bodleian Library. This is a collection of various tracts, including tables of latitudes of planets, and for finding the moon’s place; table of roots of “mene notes” for the “anni collecti,” &c. (see Part ii, sect. 44); tables of the motions of the sun and moon; astrological tables; description of planets; on horoscopes; on aspects; after which, on fol. 78, a curious table of 15 fixed stars, in which each star is denoted by some odd-shaped straggling character, and is connected with certain gems and herbs. On fol. 79 comes the “Astrolabye,” beginning—“lytull lewis my zone, I perseyve well,” &c. The conclusions in Part ii are: 1—12, 19—21, 13—18, 22—35; 41—43; 44, 45; 41*a*—42*b*; 36 and 37, ending with the words—“3 howsis that folowen;” cf. MS. L. From this MS. I have printed the text of sections 44 and 45, but have made little further use of it. The writing is not very good, and the ink pale.

§ 15. O.—MS. Ashmole 360, in the Bodleian Library. Late MS., on paper; former owner’s name, Johan Pekeryng; without diagrams. There are evidently some omissions in it. But it includes sections 44 and 45, and I have given various readings from it in those sections. It ends at the end of sect. 43*a*, with the words—“one to twelfe. & sic finis.”

§ 16. P.—MS. Dd. 12. 51 in the Cambridge University Library. Small MS. on vellum, size of pages scarcely 6 inches by 4; containing 86 leaves, and written in the fifteenth century. The text is by no means a bad one, though the spelling is somewhat peculiar. Unfortunately, some of the pages are very much rubbed and defaced; otherwise I should have made more use of it. As it is, I have taken from it some various readings, recorded in the Critical Notes. The scribe

seems generally to have understood what he was writing, which is not often the case in MSS. of the "Astrolabe;" so that this MS. is useful in passages where other texts have absurd readings.

One point deserves particular attention. It not only contains the conclusions of Part ii *in the right order*, but continues it *without a break* to the end of conclusion 43; at the end of which is the colophon—Explicit tractatus astrolabii.<sup>1</sup>

§ 17. Q.—MS. Ashmole 393, in the Bodleian Library; on paper. This is of little importance. The piece entitled "Chauucers: The Tretyse off the Astrolabye" merely fills one closely-written leaf, and contains a sort of epitome of Part i, with the beginning of Part ii.

§ 18. Of the above MSS., Mr Brae describes H., I., and L. only, and does not seem to have made use of any others. Mr Todd, in his *Animadversions on Gower and Chaucer*, p. 125, enumerates only four MSS., which are plainly A., P., F., and G. The rest seem to have escaped attention.

In addition to the MS. authorities, we have one more source of text, viz. the *Editio Princeps*, which may be thus described.

R.—The edition of Chaucer's Works by Wm. Thynne, printed at London by Thomas Godfray in 1532. This is the first edition in which the Treatise on the Astrolabe appeared; it begins at fol. ccxviii., back. The Conclusions in Part ii are in the order following, viz. 1—12, 19—21, 13—18, 22—40; after which come 41—43, and 41a—42b. This order does not agree precisely with that in any MS. now extant, with the exception of I., which imitates it. It is further remarkable for certain additions and errors, which are discussed in § 26 below. All later editions, down to Urry's in 1721, contribute no new information. The few slight alterations which appear in them are such as could have been made without reference to MSS. at all.

#### REMARKS ON THE CLASSES OF THE MSS.

§ 19. On comparing the MSS., it at once appears that they do not agree as to the order of the Conclusions in Part ii. The MSS. A., B.,

<sup>1</sup> This MS. is, in fact, of the first class, and should have been mentioned much earlier; but the mistake was overlooked till it was too late to correct it.



C. (which are unquestionably the oldest) as well as E., F., G., and P., adopt the order which appears in this edition, but which has never appeared in any previous edition. In all other editions we find the three sections 19—21 made to precede sections 13—18. Now we might here appeal to authority only, and say that the order in the *oldest* MSS. ought to be preferred. But it so happens that we can appeal to internal evidence as well, and there are at least three considerations which shew that the oldest MSS. are certainly correct. These are as follows. In the *first* place, sect. 18 amounts to finding the degree of the zodiac which *souths* with any star, and begins with the words "Set the centre of the sterre vpon the lyne Meridional"; whilst sect. 19 amounts to finding the degree of the zodiac that *rises* with any star, and begins with the words "Set the sentre of the sterre vpon the est orisonte." Clearly, these "conclusions" are closely linked together, and one ought to follow the other. But, in all the editions, this continuity is broken. In the *second* place, the rubric of sect. 21 is—"To knowe for what latitude in any region," &c.; whilst that of sect. 22 is—"To knowe in special the latitude of owre countray," &c. Clearly, these conclusions are closely linked, and in their right order. But, in all the editions, this continuity is again broken; and we have this absurd result, viz. that a proposition headed—"To knowe the degrees of the longitudes of fixe sterres" is followed by one headed—"To knowe *in special* the latitude of owre countray." What in the world can the latitude of a place have to do with the longitude of a star? And how is it possible to assign, in this arrangement, the faintest idea of sense to the words "*in special*"? This argument is alone convincing. But *thirdly*, we may note the heading of sect. 16—"This chapitre is a Maner declaracioun to conclusiouns pat folwen." By the right arrangement, this section comes earlier than it does otherwise, and precedes sections 19, 20, and 21, which is a more natural arrangement than that in former editions. This is a minor point, and I lay no stress on it. But the two former reasons are cogent, and we see that common sense confirms that arrangement of sections which the authority of the oldest MSS. prescribes. The two things together are sufficient, and we can now trust to the oldest MSS. with the greater confidence. Hence we are enabled to draw a

line, and to divide the MSS. into two classes; those in which the order of sections is correct, and those in which it has suffered misplacement, the number in each class being much the same. This gives us the following result.

*First Class.* A. B. C. (probably D.) E. F. G. P.

*Second Class.* H. I. K. L. M. N. O.; to which add R.

But this division immediately leads to another very curious result, and that is, a certain lack of authority for sections after the *fortieth*.

A. ends with an incomplete sentence, in sect. 40, with the words —“howre after howre.”

B. C. end exactly at the same place.

E. ends sect. 40 with the same words; and, after this, has only one additional section (46), which is, in my opinion, spurious; especially as it does not appear in Messahala, of which more anon.

D. fails earlier, viz. in sect. 31, which is incomplete.

F. has all down to the end of sect. 36, and then—“explicit.”

G. breaks off in sect. 34, which is incomplete.

In none of the first-class MSS. (excepting P., which terminates with section 43) is there a word about *umbra recta* or *umbra versa*.

Even in the second class of MSS., we find H. breaking off at sect. 36, and K. at sect. 35; so that the sections on the *umbra* rest only on MSS. I. (obviously an edition, not a transcript), L., M., N., O., and P. Putting aside the first of these, as being “edited,” we have but five left; and in the first four of these we find that the additional Conclusions appear in a certain order, viz. they insert 44 and 45 (on the “mene mote”) between three sections 41—43 on the “*umbra*” and five other sections 41*a*—42*b* on the same.

§ 20. This at once suggests two results. The *first* is, that, as this gives two sets of sections on the “*umbra*,” we can hardly expect both to be genuine; and accordingly, we at once find that the *last five* of these are mere clumsy repetitions of the *first three*; for which reason, I unhesitatingly reject the said *last five* as spurious. This view is strikingly confirmed by MS. P.; for this, the only first-class MS. that is carried on beyond section 40, contains the first three sections on the “*umbra*” only. The *second* result is, that if the first three sections on the “*umbra*” are to be received, there is good reason

why we should consider the possible genuineness of sections 44 and 45 on the "mene mote," which rest very nearly on the same authority.

Now the sections on the "mene mote" have in their favour one strong piece of internal evidence; for the date 1397 is mentioned in them more than once as being the "root" or epoch from which to reckon. In most cases, the mention of a date 1397 would lead us to attribute the writing in which it occurs to that year or to a *later* year, but a date fixed on for a "root" may very well be a *prospective* one, so that these sections may have been written *before* 1397; an idea which is supported by the line "behold wheþer thy date be more or *lasse þan þe ȝere* 1397;" sect. 44, l. 5. But I suspect the date to be an error for 1387, since that [see *Somer* in Tyrwhitt's Glossary] was really the "rote" used by Nicholas Lenne. In either case, I think we may connect these sections with the previous sections written in 1391.<sup>1</sup> Besides which, Chaucer so expressly intimates his acquaintance with the subjects of these sections in the *Canterbury Tales*,<sup>2</sup> that we may the more readily admit them to be really his. There is still less difficulty about admitting the first three sections (41—43) on the "umbrae," because we find similar matter in the treatise of Messahala, from which, as will appear, he derived so much. And hence we may readily conclude that, in the second part, the first forty sections, found in the oldest MSS., are certainly genuine, whilst sections 41—43, as well as 44 and 45, have every claim to be considered genuine also. This need not, however, force us to accept the remaining sections, since they may easily have been added by another hand; a circumstance which is rendered the more probable by the

<sup>1</sup> See Part ii, sect. 1, l. 4; sect. 3, l. 11. "Obviously, nobody putting a hypothetical case in that way to a child would go out of his way to name with a past verb [see the second case] a date still in the future."—Morley's *Eng. Writers*, ii. 282. Similarly, the expression "I wolde knowe," in the former case, precludes a date in the *past*; and hence we are driven to conclude that the date refers to time present. Curiously enough, there is an exactly parallel case. Blundevill's *Description of Blagrave's Astralabe*, printed at London by William Stansby, is undated. Turning to his Proposition VI, p. 615, we find—"As for example, I would know the Meridian Altitude of the Sun y<sup>e</sup> first of July, 1592." The same date, 1592, is again mentioned at pp. 619, 620, 621, 636, and 639, which renders it probable that the book was printed in that year.

<sup>2</sup> "Nother his *collect*, ne his *expans yeres*,  
Nother his *rotes*, ne his other geres;" l. 11587,8.

fact that sections 41*a*—42*b* merely repeat 41—43 in a more clumsy form, and by the consideration that, if genuine, they should have occupied their proper place immediately after sect. 43, instead of being separated from the former set. As to sect. 46, I pronounce no decided opinion; there is but little to be said either for or against it, and it is of little consequence.

§ 21. But admitting the genuineness of sections 40—45, it at once becomes evident that there are two distinct gaps or breaks in the continuity of the treatise; the first between 40 and 41; and the second between 43 and 44. A little consideration will account for these. Looking at the Canterbury Tales, we observe the very same peculiarity; at certain points there are distinct breaks, and no mending can link the various groups together in a satisfactory manner. This can be accounted for in part by our knowledge of the fact that the poet died before he had completed the proper linking-together of the tales which he had more or less finished; but I think it also shews him to have been a fragmentary worker. It seems very probable that he did sometimes actually tire of a thing which he had nearly completed, and allowed himself to begin something else for which he had meanwhile conceived a newer enthusiasm. Such characters are not uncommon amongst men of great ability. To suppose that, upon reaching “conclusion” 40, he suddenly turned to the sections upon the “*umbræ*,” which are at once more easy to explain, more suitable for a child, and illustrative of a different and more practical use of the Astrolabe, seems to me natural enough; and more probable than to suppose that anything is here lost. For, in fact, it is to the very MSS. that contain sections 41—43 that we are indebted for the last five words of sect. 40, so curiously omitted in the oldest and best MSS.; and this is a direct argument against the supposition of any matter having been here lost.

§ 22. The break between sections 43 and 44 may be explained in a totally different manner. I suppose that the break indicates a *real*, not an accidental, gap. I suppose section 43 to have been really the *last* section of Part ii, and I refer sections 44 and 45 to the *Fourth* Part of the Treatise, and not to the *Second* at all.<sup>1</sup> For if

<sup>1</sup> Not wishing to enforce this view upon every reader, and in order to save

we run through the contents of Parts Three and Four, we observe that they chiefly involve tables, with reference to one of which we find the words “vpon wych table ther folwith a *canon*,” &c. Now sections 44 and 45 exactly answer the description ; they are alternative *canons*, shewing how certain tables may be used. It happens that “Conclusion” 40 is particularly dependent upon tables. To supply these was partly the object of Part iv—“the whiche 4 Partie in special shal shewen a *table of the verray Moeuyng of the Mone from howre to howre*, euery day and in euery signe, after thin Almenak / *vpon wych table ther folwith a canon*, suffisant to teche as wel the *maner of the wyrkynge of pat same conclusion* / as to knowe in owre orizonte with wych degree of the zodiac that the Mone arisith in any latitude / & the arising of any planete after his latitude fro the Ecliptik lyne.” The opening words of the same Conclusion are—“Knowe be thin almenak the degree of the Ecliptik of any signe in which pat the planete is rekned for to be,” &c. This is easily said ; but I suppose that it was not so easy in olden times to know off-hand the exact position of a planet. It must have been shewn by tables, and these tables chiefly considered the “mene mote,” or average motion of the planets, and that only for periods of years. If you wanted the position of a planet at a given hour on a given day, you had to work it out by figures ; the rule for which working was called a “canon.” This very “canon” is precisely given at length in sect. 44 ; and sect. 45 is only another way of doing the same thing, or, in other words, is an alternative canon. When all this is fairly and sufficiently considered, we shall find good grounds for supposing that these sections on the “mene mote” are perfectly genuine, and that they belong to Part iv of the Treatise.

I will only add, that the fact of sections 41*a*—42*b* being thus placed after a portion of Part iv is one more indication that they are spurious.

§ 23. But it may be objected, as Mr Brac has very fairly objected, that Conclusion 40 itself ought to belong to Part iv. So it

trouble in reference, I have numbered these sections 44 and 45. But if they belong, as I suppose, to Part iv, they should have been named “Part iv, Canon 1,” and “Part iv, Canon 2” respectively.

ought perhaps, if Chaucer had followed out his own plan. But we have clear indications that his was one of those minds which are not easily bound down to the *exact* completion even of designs which he had himself formed. The Prologue to the Canterbury Tales must have been written later than several of the tales themselves, and yet we find him deliberately proposing to furnish *two* tales for every speaker at a time when he had not even provided for them all once round. The well known difficulty about the number of the pilgrims is probably only one more instance of a similar uncertainty ; for the simplest solution of the said difficulty is to suppose that the poet did not exactly know himself, but intended to make it come all right at some vague future period. So in the "Astrolabe," he seems to have laid down a plan, without any very distinct understanding that he was bound to abide by it. It is clear from its contents that the Prologue to the "Astrolabe" was written *before* commencement of the treatise itself, and not, as prefaces generally are, afterwards. He was pleased with his son's progress. Little Lewis had asked him if he might learn something about an astrolabe. The father at once sent him a small astrolabe<sup>1</sup> by way of reward, constructed for the latitude of Oxford, and having 45 circles of latitude on the flat disc (see Fig. 5) instead of having 90 such circles, as the best instruments had.<sup>2</sup> This, however, was a "sufficient" astrolabe for the purpose. But he believes the Latin treatises to be too hard for his son's use, and the conclusions in them to be too numerous. He therefore proposes to select some of the more important conclusions, and to turn them into English with such modifications as would render them easier for a child to understand. He then lays down a table of contents of his proposed five parts, throughout which he employs the future tense, as "the first partie *shal* reherse,"—"the second partie *shal* teche," &c. This use of the future would not alone prove much, but taken in connection with the context, it becomes very suggestive. However, the most significant phrase is in the last line of the Prologue, which speaks of "other noteful

<sup>1</sup> "A smal instrument portatif aboute;" Prol. l. 50.

<sup>2</sup> "The almykanteras in thin Astrelabie ben compowet by two and two." Part ii, sect. 5, l. 1.



thingez, yif god wol vouche sauf & his modur the mayde, mo than I behete," i. e. other useful things, *more than I now promise, if God and the Virgin vouchsafe it*. In accordance with his habits of seldom finishing and of deviating from his own plans at pleasure, we have but an imperfect result, not altogether answerable to the table of contents. I therefore agree with Mr Brae that the 40th conclusion would have done better for Part iv, though I do not agree with him in rejecting it as spurious. This he was led to do by the badness of the text of the MSS. which he consulted, but we can hardly reject this Conclusion without rejecting the whole Treatise, as it is found in all the oldest copies. By way of illustration, I would point out that this is not the only difficulty, for the Conclusions about astrology ought certainly to have been reserved for Part v. These are Conclusions 36 and 37, which concern the "equacions of howses;" and this is probably why, in two of the MSS. (viz. L. and N.), these two conclusions are made to come *at the end of the Treatise*. There is nothing for it but to accept what we have, and be thankful.

§ 24. If, then, the questions be asked, how much of the Treatise has come down to us, and what was to have been the contents of the missing portion, the account stands thus.

Of Part i, we have the whole.

Of Part ii, we have nearly all, and probably all that ever was written, including Conclusions 1—40 on astronomical matters, and Conclusions 41—43 on the taking of altitudes of terrestrial objects. Possibly Conclusion 46 is to be added to these; but Conclusions 41*a*—42*b* are certainly spurious.

Part iii probably consisted entirely of tables, and some at least of these may very well have been transmitted to little Lewis. Indeed, they may have been prepared by or copied from Nicholas of Lynn and John Somer before Chaucer took the rest in hand. The tables were to have been (and perhaps were) as follows.

1. Tables of latitude and longitudes of the stars which were represented on the "Rete" of the Astrolabe. Specimens of such tables are printed in § 30 of this Preface.

2. Tables of declinations of the sun, according to the day of the year.

3. Tables of longitudes of cities and towns.

4. Tables for setting clocks and finding the meridian altitudes (of the sun, probably).

Such tables as these are by no means lost. There are MSS. which contain little else, as e. g. MS. IIh. 6. 8 in the Cambridge University Library. The longitudes of towns are given in MS. Camb. II. 3. 3, at fol. 214*b*. Again, in MS. F. 25, in St John's College Library, Cambridge, we find tables of fixed stars, tables of latitudes and longitudes of towns, tables of altitudes of the sun at different hours, and many others.

Part iv was to explain the motions of the heavenly bodies, with their causes. This was probably never written. It was also to contain a table to shew the position of the moon, according to an almanac; and such a table is given in the St John's MS. above mentioned, and in MS. Camb. II. 3. 3, at fol. 143. This was to have been followed by a canon, and an explanation of the working of the Conclusion—"to knowe with wych degree of the zodiac that the Mone arisith," and "the arising of any planete," &c. The canon is partly accounted for, as regards the planets at least, by sections 44 and 45, and the "conclusion" by section 40.

Part v was to contain the general rules of astrology, with tables of equations of houses, dignities of planets, and other useful things which God and the Virgin might vouchsafe that the author should accomplish. Sections 36 and 37 tell us something about the equations of houses, but, in all probability, none (or, at least, no more) of this fifth Part was ever written. Tables of equations of houses, for the latitude of Toledo, are given in MS. Camb. II. 3. 3, at fol. 177, and elsewhere. Of the general rules of astrology we find in old MSS. somewhat too much, but they are generally in Latin; however, the Trinity MS. R. 15. 18 has some of them in English.

On the whole, we have quite as much of Chaucer's Treatise as we need care for; and he may easily have changed his mind about the necessity of writing Part v; for we actually find him declaring (and it is pleasant to hear him) that "*natheles, theise ben obseruauncez of iudicial matiere & rytes of paicns, in which my spirit ne hath no feith;*" ii. 4. 34.

§ 25. I next have to point out the sources whence Chaucer's treatise was derived. Mr Halliwell, in a note at the end of his edition of Mandeville's Travels, speaks of the original treatise on the Astrolabe, written in Sanskrit, on which he supposes Chaucer's treatise to have been founded. Whether the Latin version used by Chaucer was ultimately derived from a Sanskrit copy or not, need not be considered here. The use of the Astrolabe was no doubt well known at an early period in India and among the Persians and Arabs; see the "Description of a Planispheric Astrolabe constructed for Sháh Sultán Husain Safawí, king of Persia," by W. H. Morley, in which elaborate and beautifully-illustrated volume the reader may find sufficient information. Marco Polo says (bk. ii. c. 33) that there were 5000 astrologers and soothsayers in the city of Cambaluc, adding—"they have a kind of *Astrolabe*, on which are inscribed the planetary signs, the hours, and critical points of the whole year;" Marco Polo, ed. Yule, i. 399. Compare also the mention of the instrument in the 161st night of the Arabian Nights' Entertainments, where a translation which I have now before me has the words—"instead of putting water into the basin, he [the barber] took a very handsome astrolabe out of his case, and went very gravely out of my room to the middle of the yard, to take the height of the sun;" on which passage Mr Lane has a note (chap. v, note 57) which Mr Brae quotes at length in his edition. There is also at least one version of a treatise in Greek, entitled *περὶ τῆς τοῦ ἀστρολάβου χρήσεως*, by Johannes Philoponus, of which the Cambridge University Library possesses two copies, viz. MSS. Dd. 15. 27 and Gg. 2. 33. But it is clear, from his own words, that Chaucer followed the Latin, and I can point out one of the Latin treatises to which he was very considerably indebted. This is the "*Compositio et Operatio Astrolabie*," by Messahala,<sup>1</sup> of which copies are, I have no doubt, sufficiently numerous. The Cambridge library has four, viz. Hh. 6. 8, Ii. 1. 13, Ii. 3. 3,<sup>2</sup> and Kk. 1. 1, and there

<sup>1</sup> Macha-allah or Messahala, an Arabian astronomer, by religion a Jew, flourished towards the end of the eighth century. Latin translations of four of his works (*not* including the Treatise on the Astrolabe) have been printed, and were published at Nuremberg in 1549. A list of his works is given in Casiri (Bibl. Arab. hisp. tom. 1er. pag. 434), and in the Biographie Universelle.

<sup>2</sup> This splendid MS., of the *thirteenth* century, is dated 1276, and illustrated

is another copy in St John's College Library, Cambridge, marked F. 25. The title should be particularly observed; for the treatise is distinctly divisible into two separate parts, viz. the "Compositio Astrolabii" and the "Operatio Astrolabii." The former begins with the words—"Scito quod astrolabium sit nomen Græcum," and explains how to make an astrolabe, and how to inscribe on it the various necessary lines and circles with sufficient exactness. It is much the longer portion of the treatise, and (in MS. Ii. 3. 3) is illustrated by numerous diagrams,<sup>1</sup> whilst the second part has no such illustrations. But it does not appear that Chaucer made any use of this former part, as his astrolabe had been procured ready-made. The second part of the treatise, or "Operatio Astrolabii," begins with the words "Nomina instrumentorum sunt hec." This is evidently one of the sources from which Chaucer drew largely, and I have therefore printed it at length in this volume, from MS. Ii. 3. 3, with a few corrections from the other copies. Chaucer's Part i is almost wholly taken from this, but he has expanded it in several places, with the evident intention of making it more easy to understand. In Part ii, he has taken from it, with more or less exactness, sections 1—3, 5—8, 10, 11, 13—18, 20, 21, 24, 25, 27—31, 33—37, 41, and 42; whilst sections 4, 9, 12, 19, 22, 23, 26, 32, 38—40, and 43 do not appear in it. In other words, Messahala's treatise accounts for thirty-one conclusions out of forty-three, or about *two-thirds* of the whole. In some places, Chaucer has translated almost word for word, so as to leave no doubt as to his authority. Besides which, I have already remarked that Chaucer's version is *directly* connected with Messahala by the quotations from the latter which appear in MS. E.; see description of this MS. above. If it be inquired, whence did Chaucer derive the remaining third of his Second Part, I think it very likely that some of it may be found amongst the varied and voluminous contents of such a MS. as Ii. 3. 3, which is a sort of general compendium of astronomical and astrological knowledge. The complete solution of this question I leave to some one with more leisure than myself, being satisfied that with beautifully-executed coloured diagrams. It is a storehouse of information about the Astrolabe, and I frequently quote from it.

<sup>1</sup> See the Description of the Plates in this volume.

to have discovered the original of Part i and two-thirds of Part ii is to have made a good start.<sup>1</sup> It must not be omitted that the MSS. of Messahala are *not all alike*, that some copies have propositions which are not in others ; and that the order of the conclusions is not invariable. The chief noteworthy difference between Chaucer's version and the Latin original is in the order of the conclusions ; it is clear that Chaucer not only took what he liked, but rearranged his materials after his own fashion.

§ 26. About the early printed editions of the *Astrolabe*, I have not much to say. The *Editio Princeps* of 1532 was clearly derived from some MS. of the second-class, and, what between the errors of the scribes and printers, absurdities abound. After a careful examination of the old editions, I came to the conclusion that the less I consulted them the better, and have therefore rather avoided them than sought their assistance.

The following is a brief but accurate list of the editions of Chaucer's Works :

1. Ed. by Wm. Thynne, London, 1532. Folio. (The "*Astrolabe*" begins on leaf cccviii, back.)

2. Reprinted, with additional matter, London, 1542. Folio. (Leaf cxxi.)

3. Reprinted, with the matter re-arranged, London, no date, about 1551. Folio.

4. Reprinted, with large additions by John Stowe. London, 1561. Folio.

5. Reprinted, with additions and alterations by Thomas Speght, London, 1598. Folio. (Leaf 261.)

6. Reprinted, with further additions and alterations by Thomas Speght, London, 1602. Folio. (Leaf 249.)

7. Reprinted, with slight additions, London, 1687. Folio. (Page 445.)

8. Reprinted, with additions and great alterations in spelling, &c., by John Urry, London, 1721. Folio. (Page 439.)

Urry's edition is at least as bad as any before it ; but there are a

<sup>1</sup> The first suggestion as to Chaucer's use of Messahala came to me, as many other excellent suggestions have come to me, from Mr Bradshaw.

few useful explanations in the Glossary, which was added by Mr Timothy Thomas. All these editions not only give the conclusions in a wrong order, but (like the MSS. of the second class) absurdly repeat Conclusion I of Part ii, and reckon the repetition of it as Conclusion III. MSS. of the first class are free from this defect, and may thus be easily known. The only edition worth consulting is that by Mr A. E. Brae, published quite recently, in 1870. Mr Brae made much use of MS. I., besides which he consulted the Printed Editions, and MSS. II. and L. See the descriptions of these MSS. above. From this edition I have taken many hints, and I wish to express, very thankfully, my obligations to it. Mr Brae has brought to bear upon his work much skill and knowledge, and has investigated many points with much patience, minuteness, and critical ability. But I cannot but perceive that he has often expended his labour upon very inferior materials, and has been sometimes misled by the badness of those MSS. to which alone he had access; whereas I have made a point of consulting MSS. at least half a century older, and far more correct. It is solely for this reason that I believe this edition will be found more generally useful than his, as containing a sounder text; for I have been so fortunate as to have met with fewer corrupt readings, and in many cases the older MSS. explain passages at once, at the meaning of which he could but guess.<sup>1</sup> It is from no wish to depreciate his labour (which has been considerable), but only for the reader's information, that I point out a few passages where the older MSS. at once correct the text of the Editio Princeps (R) and the printed texts generally.

Conclusion III in R. (which must either be rejected or altered from the form in which it there appears) does not appear at all in the best copies.

Mr Brae observes that the description of the "Moder" (i. 3) is repeated in "all the copies." In the best MSS. it is not so repeated.

The Pin, in R., is said to hold the "tables of the elymathes *in* the

<sup>1</sup> For all the information derived from Mr Brae's works, he has my sincere acknowledgments and thanks; and for any expressions of mine which insufficiently represent his claims as an interpreter of Chaucer, my regret. To all fellow-workers I cordially wish success, and would rather forego all credit than claim too much.



reethe in the wombe of the moder" (i. 14). But, for the first "in," the best MSS. have "and." The sense is very different.

I here observe, by the way, that, in his Preface, p. 2, Mr Brae suggests that the Wedge (i. 14) may have been ornamented with the figure of a horse's head. This guess is turned into a certainty by the diagram in MS. II. 3. 3, which I have copied. See Fig. 7.

In the same section (i. 14) we read in R. that this "hors" straineth all these parts "togyther." The sense is right enough, but *togyther* is a mere late gloss. The best MSS. have the curious Chaucerian phrase *to hepe*. So also in the translation of Boethius, ed. Morris, p. 140—"god ȝeueþ and departiþ to oþer folk prosperites and aduersites ymedeled *to hepe*;" and in Troil. and Cress. iii. 1770 (ed. Tyrwhitt), we have the complete phrase—"And lost were all, that Love *halt now to hepe*." Mr Morris's edition (Aldine Series, iv. 297) has "halt now to kepe," which is probably a misprint.

In the last part of i. 17, Mr Brae inserts the words *bicause that the head of Capricorne*, which, he says, are not in the copies. But they really *do* exist in the older MSS.; see i. 17. 34.

In i. 18. 4, where the old MSS. have "is eleped the senyth," Mr Brae (following R.) prints "is eleped the Signet,"—with the remark that "Stevens invariably, but very improperly, altered *signet* to *Zenith*." This involves a chronological error of at least three centuries. Mr Brae occasionally attributes to Stevens or Stöffler expressions which may be found in the Latin version of Messahala, three hundred years earlier.<sup>1</sup> It is not a question of opinion, but of fact. In this and many similar instances, we must consult the Latin original, which the reader may now do for himself.

In i. 21, for "the riet of thin astrelabie *with* thy zodiak," R. has "which is thy Zodiake." The older reading is the better; for the Rete is not *identical* with the zodiac, but only *contains* it.

In i. 21. 9, for "by northe the est line," i. e. to the North of the East line (which is clearly right), R. has "by the north-eest lyne;" an obvious corruption of the text.

In i. 21. 42, R. has "transmue" instead of "causen." But signs cannot "transmute in us operations."

<sup>1</sup> The double form of the "skale" appears in a MS. dated 1276.

(The curious passage in i. 21. 48—56, found in the old copies, was accidentally omitted in Mr Brae's edition.)

In ii. 3. 29, Mr Brae explains "Alhabor" to be the star Rijel or Rigel ( $\beta$  Orionis). This was because the numbers in the later MSS. are incorrect. But the numbers in the older MSS. are quite consistent with the usual explanation, which identifies Alhabor with Sirius or the Dog-star. That Alhabor and Rigel are totally different appears from the list of stars printed below, from MS. Camb. II. 3. 3.<sup>1</sup> As if to preclude all mistake, the diagram in MS. A. represents the Dog-star by a roughly-drawn dog's head, with the name "Alhabor" written on it; see Fig. 2.

In ii. 4. 26, for "infortunyng" R. has "fortune"; this exactly reverses the sense.

In ii. 4. 31, R. omits the necessary words "and þat he be."

In ii. 4. 33, for "ioigned," i. e. joined, R. has "reygned;" which gives no sense.

In ii. 11. 5, R. omits "of any of thise howris þat ben passed, or elles how many howres or partie of."

In ii. 11. 12, for "laste chapitre of the 4 partie," R. has "fourthe partye of the laste chapitre;" the cart before the horse.

In ii. 13. 5, Mr Brae prints "the highest degre," with the note, "in all the copies this word is *lyne*. It ought manifestly to be *degre*." The oldest MSS. have neither *line* nor *degre*, but a third word, viz. *cours*.

So in the rubric to ii. 17, for "longitude" R. has "latitude;" but Mr Brae observes that the object of the problem is *longitude*. The oldest MSS. have "longitude" rightly enough.

In ii. 17. 24, R. has "after the syght." Mr Brae well says that "it is difficult to interpret *after the sight*." So it is; but the right reading "after the *site*" is clear enough.

In ii. 23, Mr Brae has an argument to shew that the two stars used were  $\beta$  Ursæ Majoris and the Pole-star; and that the former was the star from which the latitude was derived, whilst the latter (the pole-star) was merely used to help to find the other's place. This

<sup>1</sup> See also Fig. 2 and Fig. 9, where they are marked on the lower rim at some distance apart.

curious inversion was caused by the false numbers in the late copies. The true numbers in the early copies shew (as might have been expected) that it was exactly the other way ; the latitude, or rather the elevation of the pole was, naturally enough, derived as usual from observing the pole-star, and the other star (to determine which we have quite insufficient data) was merely used for convenience, to help to fix the pole-star's position.

In ii. 25. 36—40, the old editions are so imperfect that the text has to be guessed at. The old MSS. are clear enough.

In ii. 26. 22, R. has "ouercometh the equinoctial." The right word is "ouerkeruyth," i. e. cuts across, crosses.

In ii. 29. 7, Mr Brae prints "bordure" correctly ; but he had to guess at it, for his authorities had "sonne," which he saw to be absurd.

In ii. 30, he attributes to Stevins the notion that the "wey of the sonne" means the sun's apparent diurnal path, and says that it is wrong. However absurd it may seem, I suspect it is what Messahala means ; at any rate, the oldest MSS. distinctly say "the wey wher as the sonne wente thilke day" (ii. 30. 10) ; but the later copies differ from this.

In ii. 31. 2, the phrase "by north the est" is again corrupted (in R.) into "by Northe-est."

In a note on p. 52, Mr Brae says that Stevins has everywhere wrongly altered *minute* to *Azimuth*. But the latter reading can be defended ; it was so written a century before Stevins was born. The rubric to ii. 34 is corrupt in the later copies ; Mr Brae has restored it by conjecture, and the old copies shew that he has done rightly.

In ii. 34. 6, he has "wayte than of which degre the zodiake is to which the pryck of the altitude of the Mone [applies]." Curiously enough, MS. A. also erroneously has *to which*, but collation at once shews that it is a mere error for *touchith*, and the right reading is as I have given it. R. also wrongly has *to whiche*.

In ii. 35. 18, for "Episicle" R. has "eelyptyke lyne."

In ii. 39. 3, R. has "signet" instead of "lyne Meridional," which cannot well be explained. The last part of ii. 35, viz. ll. 19—27, is very badly represented in R.

The whole of ii. 40 is also so badly represented in R. and the late MSS. that Mr Brae was led to reject it. But it occurs in MSS. A., B., C., and others, and is therefore of the same age as all the Conclusions which precede it.

Besides his print of Chaucer's Astrolabe, Mr Brae has reprinted some curious and interesting critical notes of his own, and has added some essays on Chaucer's "prime," on "the Carrenare," and "shippes cposteres." To some of these I shall refer presently. To all that he has done I am much indebted, and I should, indeed, have abandoned the editing of the present volume but for the fact that I had ascertained the existence of better materials than he happened to meet with.

It is, perhaps, not out of place to observe here that those who are best acquainted with Early English will readily perceive that the spelling, and many turns of expression, are of an older character in the present edition than in any that has preceded it.

§ 27. The works upon, and descriptions of, the astrolabe, are numerous. I have had neither time nor inclination to make researches into the subject; for which reason I here note the names of a few books which may be examined by the curious reader.

In his Universal Lexicon, Zedler explains that astrolabes are of two kinds, "universal" and "particular." He speaks of the astrolabes (1) of Gemma Frisius; see Petri Apiani Cosmographia, per Gemmam Phrysiū restituta; (2) of Johan de Rojas, a Spaniard, A. D. 1550; (3) of De la Hire the elder, professor of mathematics at Paris, A. D. 1702; (4) of Johannes Stofferinus (or Stöffler), A. D. 1510. The last of these differed from the others in adopting a different and more convenient system of projection, viz. that upon the plane of the equator, or one parallel to it, the eye being in the antarctic pole, and the arctic pole being made the centre of the instrument. This projection is the same as that which was used by Ptolemy, and it is adopted in the diagrams which accompany Chaucer's treatise in some of the MSS. It should be observed here that the term "astrolabe" alone is vague; it was originally a general name for any circular instrument used for observation of the stars; but in the sixteenth and seventeenth centuries it was restricted to the

particular kind called the "Astrolabe Planisphere," or astrolabe *on a flat surface*, in which sense alone the word is used throughout this volume. See the English Cyclopædia, Arts and Sciences, s. v. *Astrolabe*.

The simplest work is that by Stöffler or Stoflerinus, as he calls himself; see also Gemma Frisius, Metius, Clavius Bambergensis, the *Cursus Mathematicus* of Dechales, vol. iv. p. 161, Delambre's *History of Astronomy*, and other works. The plates in Metius are most exquisitely engraved, and on a large scale, and give a better representation of the instrument than any others that I have seen.

One of the MSS. speaks, as I have said, of an astrolabe belonging to Merton College, Oxford. There is a very nice one, made of brass, and by a Dutch engraver, in the library of King's College, Cambridge. It has several discs or plates, or, as Chaucer calls them, "tables."<sup>1</sup> Of this instrument the same library contains a written description, with some account of the problems it will solve, and an investigation of its probable date, by H. Godfray, Esq., of St John's College. There is also a small silver instrument in Trinity College, Cambridge, which has a circular rim like that of an astrolabe.

There is a book entitled "A verie briefe and most plaine description of Mr Blagrave his Astrolabe," &c., by Mr Blundevill; London, printed by William Stansby. It is unlabeled, but mentions the date 1592 several times. This treatise is very much on Chaucer's plan, as it gives a description of the instrument, followed by the Conclusions which it will solve. But it turns out to be of little practical assistance, because Blagrave's astrolabe was on a different principle. Blundevill, in his Preface, says he has seen but three sorts of astrolabes, first, that of Stöfflerus, which was much used for a whole century; secondly, the *Catholicon*, or universal astrolabe of Gemma Frisius; and thirdly, an improved *Catholicon* by Mr Blagrave, "a Gentleman of Reading besides London." He goes on to say that broad astrolabes are bad for use at sea, as being affected by the wind; "which thing to auoyde, the Spaniards doe commonly

<sup>1</sup> This word has several senses in Chaucer. It means (1) the discs of an astrolabe; (2) a set of tablets; (3) astronomical tables; and (4) the game of "tables."

make their Astrolabes or Rings narrow and weighty, which for the most part are not much above five inches broad, and yet doe weigh at the least foure pound." English astrolabes, he says, are very heavy, and six or seven inches broad. He recommends that more of the southern stars should be represented on the "Rete," such as the Southern Cross, the Southern Triangle, Noah's Dove or Pigeon, and another called Polophilax, lately found out by mariners. Blagrave's Astrolabe had 71 stars on the Rete, which Blundevill enumerates. He alludes to the division of the mariner's compass into 32 parts, as in Chaucer's time, each part being termed "a Rombe." He always calls the "rewle" the "Diopter." There is little else in his volume that illustrates Chaucer.

### § 28. DESCRIPTION OF THE ASTROLABE PLANISPHERE.

There is not, however, much need of reference to books to understand what the astrolabe used by Chaucer was like. The instrument may be readily understood from a brief description, and from the Plates in this volume.

The most important part of the "astrolabe planisphere" consisted of a somewhat heavy circular plate of metal from four to seven inches in diameter, which could be suspended from the thumb by a ring (i. 1), working with such freedom as would allow the instrument to assume a perfectly perpendicular position (i. 2). One side of the plate was perfectly flat, and was called the *back*. This is represented in Fig. 1. On it was described a number of concentric rings, marked with various divisions, which may be readily understood from the figure. Beginning at the outermost ring, the first two represent the ninety degrees into which each quadrant of a circle can be divided (i. 7). The next two represent the signs of the zodiac, each subdivided into thirty degrees (i. 8). The next two represent the days of the year, and are rather difficult to mark, as the circle has, for this purpose, to be divided into  $365\frac{1}{4}$  equal parts (i. 9). The next three circles shew the names of the months, the number of days in each, and the small divisions which represent each day, which coincide exactly with those representing the days of the year (i. 10). The two innermost rings shew the saints' days, with their Sunday-letters. Thus, above the 21st of



December, is written "Thome," i. e. St Thomas's day, its Sunday-letter being  $\epsilon$ ; the rest can easily be traced by the tables in Prayer-book (i. 11). These may be thus briefly recapitulated.

1 and 2. Circles of degrees of the quadrant and circle.

3 and 4. Circles of the zodiacal signs, with their degrees.

5 and 6. Circles of the days of the year, with their numbers.

7, 8, and 9. Circles of the months, with their days and numbers of the days.

10 and 11. Circles of saints' days, with their Sunday-letters.

Within all these, are the Scales of Umbra Recta and Umbra Versa, in each of which the scale is divided into twelve equal parts, for the convenience of taking and computing altitudes (i. 12). This primitive and loose method of computation has long been superseded by the methods of trigonometry. Besides these circles, there is a perpendicular line, marking the South and North points, and a horizontal line from East to West.

The other side of the plate, called the *front*, and shewn in Fig. 2, had a thick rim with a wide depression in the middle (i. 3). The rim was marked with three rings or circles, of which the outermost was the Circle of Letters (A to Z) representing the twenty-four hours of the day, and the two innermost the degrees of the quadrants (i. 16). The depressed central portion of the plate was marked only with three circles, the "Tropicus Cancræ," the "Æquinoctialis," and the "Tropicus Capricorni" (i. 17); and with the cross-lines from North to South, and from East to West (i. 15). But several thin plates or discs of metal were provided, which were of such a size as exactly to drop into the depression spoken of. The principal one of these, called the "Rete," is shewn in Fig. 2. It consisted of a circular ring marked with the zodiacal signs, subdivided into degrees, with narrow branching limbs both within and without this ring, having smaller branches or tongues terminating in points, each of which denoted the exact position of some well-known star. The names of these stars, as "Alhabor," "Rigel," &c., are (some of them) written on the branches (i. 21). The "Rete" being thus, as it were, a skeleton plate, allows the "Tropicus Cancræ," &c., marked upon the body of the instrument, to be partially seen below it. Another form of the "Rete" is shewn in Fig. 9,

and other *positions* of the Rete in Fig. 11 and Fig. 12. But it was more usual to interpose between the "Rete" and the body of the instrument (called the "Mother") another thin plate or disc, such as that in Fig. 5, so that portions of this latter plate could be seen beneath the skeleton-form of the "Rete" (i. 17). These plates are called by Chaucer "tables," and sometimes an instrument was provided with several of them, differently marked, for use in places having different latitudes. The one in Fig. 5 is suitable for the latitude of Oxford (nearly). The upper part, above the Horizon Obliquus, is marked with circles of altitude (i. 18), crossed by incomplete arcs of azimuth tending to a common centre, the zenith (i. 19). The lower part of the same plate is marked with arcs denoting the twelve planetary hours (i. 20).

At the *back* of the astrolabe revolved the "rule," made of metal, and fitted with sights, represented in Fig. 3 (i. 13). At the *front* of it revolved the "label," represented in Fig. 6 (i. 22).

All the parts were held together by the central pin (Fig. 4) which passed through the holes in the "moder," plates, "Rete," rule, and label,<sup>1</sup> and was secured by a little wedge (i. 14), which was sometimes fancifully carved to resemble a horse (Fig. 7).

Another "table" or disc is shewn in Fig. 14, and was used for ascertaining the twelve astrological houses.

### § 29. USES OF THE ASTROLABE PLANISPHERE.

I here briefly enumerate such principal uses of the instrument as are mentioned by Chaucer.

The *back* (Fig. 1) shews at once the degree of the zodiac answering to every day in the year (ii. 1). The altitude of the sun can be taken by the "Rule," elevated at the proper angle (ii. 2). If the Rete be properly adjusted to this altitude, we can thus tell the hour of the day (ii. 3). The duration of twilight can be calculated by observing when the sun is  $18^{\circ}$  below the horizon (ii. 6). Observe the times of sunrise and sundown, and the interval is the "artificial day" (ii. 7).

<sup>1</sup> "*Pertuis*: m. A hole. *Pertuis de l'Araigne*, the centre of an Astrolabe; the hole wherein all the tables thereof are, by a pin or nail, joined together."—Cotgrave's French Dictionary.

This day, with the duration of morning and evening twilights added to it, is called the “vulgar day” (ii. 9). The plate in Fig. 5 shews the planetary hours (ii. 12). The placing of the sun’s degree on the South-line gives the sun’s meridian altitude (ii. 13), and conversely (ii. 14). The back of the instrument can shew what days in the year are of equal length (ii. 15). The degree of the zodiac which souths with *any* star can be ascertained by observing two altitudes of the star; but the observations must be made when the star is *very near* the meridian (ii. 17). If the star be marked on the Rete, the said degree is easily found by use of the Rete (ii. 18). We can also find with what degree of the zodiac the same star rises (ii. 19). The use of the Rete also shews the declination of every degree in the zodiac (ii. 20). We can always tell for what latitude a disc such as that in Fig. 5 is constructed, by properly examining it (ii. 21). The latitude of any place can be found by two observations of the altitude of the Pole-star (ii. 23); or of any circum-polar star (ii. 24); or by observing the sun’s meridional altitude (ii. 25). The Rete also tells us the “ascensions of signs,” or how many degrees of the equinoctial circle pass the meridian with a given sign (ii. 27); as also the “oblique ascensions” of the same (ii. 28). The astrolabe can also be used to discover (but only in an imperfect and approximate manner) the four cardinal points of the compass (ii. 29). We can also compare the altitude of a planet with that of the sun (ii. 30). We can find in what part of the horizon the sun rises (ii. 31); and in what direction to look for a conjunction of the sun and moon (ii. 32); also near what point of the compass the sun is at any given hour (ii. 33). The moon’s observed altitude will shew her longitude (ii. 34). We can tell, from two observations of a planet properly made, whether the planet’s movement is direct or retrograde (ii. 35). The disc shewn in Fig. 14 helps to shew the “equations of houses” (ii. 36). The four cardinal points can be found *without* an astrolabe, by an experiment properly conducted (ii. 38). The astrolabe can be used to find the degree of the zodiac with which any planet ascends, even when the planet is not situated in the ecliptic (ii. 40).

By the use of the *Umbra Recta* on the back of the instrument, we can take the altitude of an accessible object by a single observa-

tion (ii. 41); or of an inaccessible object by two observations (ii. 43). Or, the height of an inaccessible object may likewise be taken by two observations, by the scale marked *Umbra Versa* (ii. 42).

The few conclusions not here referred to are chiefly explanatory, or of minor interest.

### § 30. STARS MARKED ON THE RETE.

Several of the Latin MSS. upon the Astrolabe give a list of the stars marked upon the Rete. The first double list printed below is from the Cambridge MS. which has also furnished us with the Latin version of Messahala. It is given in the form of two tables; the first mentions 49 stars, with the degrees of the zodiac which south along with them, and their declinations from the equinoctial line. The second table mentions some only of *the same* stars, with their longitudes and latitudes, as referred to the ecliptic.

TABLE I. FORTY-NINE STARS MARKED UPON A RETE.

[MS. Camb. Univ. Lib. II. 3. 3; fol. 70, back.]

Tabula stellarum fixarum que ponuntur in astrolabio, cum gradibus quibus celum mediant, et cum distantia earum ab equinoctiali linea.

Nomina signorum.	Nomina stellarum.	Ymagines stellarum.	Longitudo.		Latitudo.		Pars latitudinis est hęc.
			Gr.	Min.	Gr.	Min.	
Aries	(1) Mirach	venter cethi	7*	0	32	30	N†
	(2) Baten kaytoz		18	30	13	30	S
	(3) Panten kai-toz <sup>1</sup>		20	0	14	0	S
	(4) Enif		22	0	23	30	N
	(5) Finis fluxus		29	0	4	30	S

\* The MS. has "Gradus O. Minuta 7;" but I have collated its readings with those in MS. Univ. Lib. II. 1. 13, fol. 81, back; and the latter has "Grad. 7. Min. O," which seems rather to be meant.

† The MS. has contractions for "Septentrionalis" and "Meridionalis;" I alter these to "N" and "S" throughout, as being more explicit and less troublesome.

<sup>1</sup> Patencataytoz in II. 1. 13.

Nomina signorum.	Nomina stellarum.	Ymagines stellarum.	Longitudo.		Latitudo.		Pars latitudinis est hec.
			Gr.	Min.	Gr.	Min.	
Taurus	(6) Menkar	Naris cethi	6	0	1	0	S
	(7) Algenib	Frons algonis	10	0	49	0	N
	(8) Algecenar <sup>1</sup>		22	0	16	0	S
	(9) Aldebaran	Oculus vel cor tauri	29	0	14	30	N
Gemini	(10) Alhaioth	Hyreus vel humerus sag.	6	0	45	0	N
	(11) Rigil	Pes orionis	11	0	10	0	S
	(12) Algeuze	Humerus dexter orionis	15	0	8	0	N
Cancer	(13) Alhabor	In ore canis merid.	3	0	15	0	S
	(14) Razalgeuze	Cap. d. geminorum	9	0	33	0	N
	(15) Algomeyza	In collo canis	13	0	7	0	N
	(16) Markep		21	0	22	30	S
	(17) Egregez		24	0	45	0	N
Leo	(18) Aldurin <sup>2</sup>	In fronte leonis	6	0	6	0	S
	(19) Alfart <sup>3</sup>	Equus vel cingulus	13	0	18	30	S
	(20) Calbalezed <sup>4</sup>	Cor leonis	20	0	15	0	N
	(21) Alrucaba	Vrsa	20	0	35	0	N
Virgo	(22) Coruus		1	0	11	0	S
	(23) Dubhe	Id est, Vrsa	2	0	6	0	N
	(24) Deneb alezed	Cauda leonis	15	0	19	30	N
	(25) Algorab	In centauro	22	0	13	30	S
Libra	(26) Alchimec	Inhermis	10	0	7	0	S
	(27) Bennenaz	Filie feretri in themone	9	0	43	0	N
	(28) Alramech	Lanceator	27	0	24	0	N
Scorpius	(29) Alfeta	In corona adriane	16	0	29	0	N
	(30) Alachil		17	0	19	0	N
	(31) Yed		26	0	3	0	S
	(32) Calbalaerab	Cor scorpii	27	0	23	0	S
Sagittarius	(33) Alhaue <sup>5</sup>	Capud draconis	13	0	15	0	N
	(34) Rahtaben <sup>6</sup>	Capud serpentis	25	0	51	0	N

<sup>1</sup> Angethanar in li. 1. 13.<sup>3</sup> Alfart in MS. li. 1. 13.<sup>5</sup> Alhaue vel Razalegue in the same.<sup>2</sup> Aldiran in MS. li. 1. 13.<sup>4</sup> Calbelezet in the same.<sup>6</sup> Razraleyn in the same.

Nomina signorum.	Nomina stellarum.	Ymagines stellarum.	Longitudo.		Latitudo.		Pars latitudinis est hec.
			Gr.	Min.	Gr.	Min.	
Capricornus	(35) Wega	Vultur cadens	3	0	38	0	N
	(36) Altair	Vultur volans	16	0	7	0	N
	(37) Delfin		29	0	12	30	N
	(38) Alrif	In cigno	29	0	42	0	N
	(39) Addigege	Cauda galline	30	0	43	0	N
Aquarius	(40) Libedeneb	Cauda capri	6	0	22	0	S
	(41) Delfin	Nubilosior & orientior	10	0	6	0	N
	(42) Aldurin <sup>1</sup>		10	0	59	0	N
	(43) Enifelferaz	Musida equi pegasi <sup>2</sup>	13	0	7	0	N
	(44) Denebalgedi	Cauda capricorni	14	0	19	30	S
Pisces	(45) Sceath <sup>3</sup>	Crus	30	0	19	0	S
	(46) Alferaz	In pegaso <sup>2</sup>	6	0	24	0	N
	(47) Mentichel	Humerus equi alati	18	0	25	0	N
	(48) Denebkaitoz	Cauda cethi	22	0	10	0	S
	(49) Sceder <sup>4</sup>		28	0	53	0	N

NOTES. Star (4); Latitude given as 22 in the other MS. (II. I. 13). Star (16); Longitude may be 22. Star (17); Longitude is 34 in the MS. Star (38); Longitude 20 in the other MS. Both the numbers and the directions North and South seem to be occasionally incorrect.

TABLE II. LONGITUDES AND LATITUDES OF SOME OF THE ABOVE STARS.

Tabula stellarum fixarum uerificatarum per armillos<sup>5</sup> parisius;<sup>6</sup> et est longitudo earum gradus circuli signorum per circulum transeuntem polos zodiaci et stellas; latitudo vero earum est arcus eiusdem circuli cadens inter stellas et gradus longitudinis earum.

<sup>1</sup> Aldird in the same.

<sup>2</sup> Miswritten pesagi, pesago.

<sup>3</sup> Or (in other MS.), Scarath.

<sup>4</sup> Or, Seder.

<sup>5</sup> armilla in other MS.

<sup>6</sup> The form *parisius*, apparently put for *parisios*, occurs in Barbour's Bruce, iv. 251.



Sigma.	Nomina stellarum fixarum.	Ymagines stellarum.	Longitudo.		Latitudo.		Pars lati- tudinis.
			Gr.	Min.	Gr.	Min.	
Aries	(3) Panta kaytoz	Venter cethi	10	0	20	0	S
	(9) Aldebaran	Oculus vel cor tauri	20	0	5	0	S
Taurus	(7) Algenib	Latus dextrum persei	20	0	30	0	N
	(6) Menkar	Naris cethi	2	0	12	0	S
Gemini	(11) Rigil all- geuze	Pes orionis	5	0	30	0	S
	(10) Alhaioth	Hyrcus	10	0	22	40	N
	(12) Bedelgeuze	Humerus dexter orionis	15	0	15	30	S
Cancer	(13) Alhabor	In ore canicule	3	0	39	10	S
	(15) Algomeiza	In collo canis maioris	14	0	15	30	S
	(14) Razelgeuze	Capud gemino- rum	8	0	10	0	N
Leo	(23) Dubhe	Vrsa	4	0	50	0	N
	(20) Calbalezed	Cor leonis	18	0	0	10	S
	(19) Alfart	Equus vel singu- laris cingulus	15	0	22	30	S
Virgo	(24) Denebalezed	Cauda leonis	9	0	12	0	N
	(25) Algorab	Coruus	29	0	15	0	S
Libra	(27) Benneznas	Filie feretri	16	0	53	30	N
	(28) Alramech	Lanceator	13	30	31	30	N
	(26) Alchimech	In-hermis	11	30	20	30	N
Scorpius	(29) Alfeta	In corona	1	20	44	30	N
	(32) Calbalacrab	Cor scorpii	28	0	4	30	S
Sagittarius	(34) Raztaben	Capud draconis	12	0	47	0	S
	(33) Razelgeuze <sup>1</sup>	Capud serpentis	10	0	36	0	N
Capricornus	(35) Alwega	Vultur cadens	13	0	62	30	N
	(36) Altair	Vultur volans	20	0	29	30	S
	(39) Addigege	Cauda galline	21	0	60	30	N
Aquarius	(44) Denebalgedi	Cauda capri	13	0	2	30	S
	(41) Delfin	Nubilosior eius & orientior	6	0	32	0	N
	(43) Enif elferaz	Musida equi pe- gasi	21	0	23	40	N

<sup>1</sup> Razalegue in *other* MS

Signa.	Nomina stellarum.	Ymagine stellarum.	Longitudo.		Latitudo.		Pars lati- tudinis.
			Gr.	Min.	Gr.	Min.	
Pisces	(45) Sceath	Crus [aquarii]	27	0	7	0	S
	(46) Alferaz men- tel	Humerus equi	20	0	31	0	N
	(48) Denebkaytoz	Cauda cethi	21	0	20	0	S

In the above tables I have inserted the numbers (1), (2), &c. for convenience of reference. The 49 stars mentioned are the following. (Compare Ideler, *Untersuchungen über die Bedeutung der Sternnamen*, &c.) I do not pretend to identify them with perfect exactness.

- (1) Mirach; or  $\beta$  Andromedæ.
- (2) Perhaps  $\tau$  Ceti.
- (3)  $\zeta$  Ceti; or, the Whale's Belly; see Ideler.
- (4)  $\alpha$  Arietis; also called Alnath. *Enif* means *nose*.
- (5) A star in Eridanus. But it looks more like  $\sigma$  Ceti.
- (6) Menkar;  $\alpha$  Ceti; or, the Whale's Nose.
- (7) Algenib; or  $\alpha$  Persei.
- (8) Perhaps  $\gamma$  Eridani.
- (9) Aldebaran;  $\alpha$  Tauri, or the Bull's Eye.
- (10) Capella;  $\alpha$  Aurigæ; sometimes called Alhaioth.
- (11) Rigel;  $\beta$  Orionis.
- (12)  $\alpha$  Orionis; often called Betelgeux.
- (13) Alhabor; Sirius, or the Dogstar.
- (14) Razalgeuze; Castor;  $\alpha$  Geminorum.<sup>1</sup>
- (15) Algomeisa; Procyon;  $\alpha$  Canis Minoris; the Little Dog.
- (16)  $\epsilon$  Argous; see Ideler. (Different from *Markab*, or  $\alpha$  Pegasi.)
- (17) Uncertain.
- (18) Aldurin; a star in the Lion; uncertain which.
- (19) Alphard; Cor Hydræ;  $\alpha$  Hydræ.
- (20) Calbalased; the Lion's Heart; Regulus;  $\alpha$  Leonis.

<sup>1</sup> The name *Razalgeuze* is commonly applied to Pollux; but Castor seems to be meant here; see Ideler, p. 151.

(21) Perhaps a star in Ursa Major ; possibly  $\lambda$  Ursæ Majoris, its latitude being wrongly given. *Alrucaba* was also a name for the Polestar (Ideler, p. 14). *Rukhba* means *knee*.

(22) Uncertain ; possibly  $\gamma$  Crateræ. See No. 25.

(23) Dubhe ;  $\alpha$  Ursæ Majoris.

(24) Denebalased ; the Lion's Tail ;  $\beta$  Leonis.

(25) Algorab ; i. e. the Crow ;  $\gamma$  Corvi. It is clear that Corvus and Centaurus were not the same as on a modern globe.

(26) Alchimech : Spica Virginis ;  $\alpha$  Virginis.

(27) Benetnasch ;  $\eta$  Ursæ Majoris ; the foremost horse in Charles's Wain, which the Arabs likened to a bier with a girl laid on it. (Hence Lat. *feretri filie*.)

(28) Alramech ; Arcturus ;  $\alpha$  Boötis.

(29) Alphecca ;  $\alpha$  Coronæ Borealis.

(30) Perhaps  $\beta$  Serpentis.

(31)  $\delta$  Ophiuchi.

(32) Cor Scorpïi ; the Scorpion's Heart ; Antares ;  $\alpha$  Scorpïi.

(33)  $\alpha$  Serpentarii vel Ophiuchi ; also called Ras Alhagus.

(34)  $\gamma$  Draconis ; Etanim ; the Dragon's Head.<sup>1</sup>

(35) Wega ; Vega ;  $\alpha$  Lyræ ; Lyræ.

(36) Altair ;  $\alpha$  Aquilæ.

(37) Possibly  $\alpha$  Delphini ; the four stars  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ , are very close together.

(38) A star in Cygnus ; very near the next following. In fact, *El-ridf* was only another name for *Arided* (Ideler, p. 74).

(39) Arided ; Deneb adigege ;  $\alpha$  Cygni.

(40) Somewhere near  $\zeta$  Capricorni.

(41) Probably  $\beta$  Equulei. The name "Delfin" seems to imply that Equuleus was also called Delphinus Minor.

(42) The word "Aldurin" or "Aldira" is meant for Alderamin or  $\alpha$  Cephei.

(43) Enif, or Enir ;  $\epsilon$  Pegasi.

(44) The Goat's Tail ;  $\delta$  Capricorni.

<sup>1</sup> It is perfectly clear that the scribe has changed the places of the words "Capud draconis" and "Capud serpentis," or rather, "serpentarii."

(45)  $\delta$  Aquarii; represented as on the leg of the Waterbearer; hence called "Crus Aquarii."

(46) Alpheraz, or the Horse;  $\beta$  Pegasi.

(47) Mentichel;  $\alpha$  Andromedæ. This star and the former are both called "humerus equi."

(48) The Whale's Tail;  $\beta$  Ceti.

(49) Shedir;  $\alpha$  Cassiopeïæ.

Even when all allowances are made for the alteration of the position of the pole since this table was made, it must be held to be very faulty. To the numbers given in the "longitude" column we must add always from 7 to 12 degrees, to make them equal to the present longitudes. The second table helps to confirm the interpretation of the first in many cases.

#### TABLE III. OTHER TABLES OF THE SAME STARS.

After Tables I and II were in type, I found that the tables, as given in MS. Hh. 6. 8, were very differently arranged, and had the peculiar merit of being *dated*, as well as being explicitly calculated for the latitude of  $48\frac{1}{2}$  degrees. Their date is A. D. 1223, and I here add them for their curiosity, premising that the extraordinary misspellings of the Arabic names are due to the scribe, and not to me. Thus *Algleri* is for *Algorab*; *pes canis* means *pes Orionis*; *Galbaiced* is for *Calbalased*; *Bacelmara* is an error for *Ras el-marâ*, "the woman's head,"  $\alpha$  Andromedæ; and *Bacelgohol* is for *Ras Algol* or *Algol*. I may here add, that the word *In-hermis* against star (26) in Table I, is puzzling till explained; nor is it made clearer by being spelt *mermius* (!), as in MS. Ii. 1. 13. It is put for *inermis*, i. e. unarmed, a name given to the hand of Virgo holding the Spica ( $\alpha$  Virginis), in Arabic *El-simâkh el-a'zal*, "the unarmed Simâkh;" as distinguished from  $\alpha$  Boötis, in Arabic *El-simâkh el-râmiḥ*, "the Simâkh with the lance." See Ideler, p. 51.

[MS. Camb. Univ. Lib. Hh. 6. 8, fol. 236.]

Tabula stellarum fixarum que ponuntur in Astrolabio, certificata ad ciuitatem parisius cuius latitudo est .48. gradus et .30. Minuta. In anno domini nostri iesu christi .1223.

Signa.	Nomina stellarum fixarum.	Gradius cum quibus mediant celum.	Gradius longi- tudinis ex utraque parte.	Altitudo meri- diana.	Min.	In quibus ymaginibus sint.
		Gra.	Gra.	Gr.		
Aries	(3) Pacancaitoz .i. pes caitoz	20	39	28	0	In pede cuiusdam ali- tis (?)
Taurus	(7) Algen	7	71	88	0	In fronte algonis; im- mo, in dextro persei lateris.
	(9) Aldebaran	28	49	46	30	In oculo tauri.
Gemini	(10) Alhaioz	3	74	87	0	In humero agitatoris.
	(11) Ragel	10	39	32	0	In pede orionis.
	(12) Algeuie	14	55	49	0	In pede geminorum.
Cancer	(13) Alhaioz	1	36	26	0	In cane meridionali.
	(15) Algomeiza	10	56	48	30	In cane septentrionali.
	(17) Egregez	24	72	87	0	[8. 30.
Leo	(18) Aldiraan	6	52	48	0	In fronte leonis.
	(19) Alfard	13	41	35	0	In ydra serpente .35.
	(20) Calbalacet	18	61	57	0	30. ad minus.
	(21) Alrucaba	17	76	90	0	In corde leonis.
Virgo	(25) Alglari	18	38	31	0	In centauro.
Libra	(26) Alchimech	9	42	35	0	In-hermis .34.
	(27) Benenah	18	74	84	0	Ultra cenith in temone plaustr.
	(28) Alramech	24	65	65	0	Qui tenet lances.
Scorpius	(29) Elfeta	16	71	72	0	In corona.
	(30) Alielis	17	57	51	0	
	(32) Calbalagrab	27	14	10	0	In corde scorpionis.
Sagittarius	(33) Allahin	13	57	57	0	In capite alay .56. 30. ad plus.
Capricornus	(35) Wega	1	72	79	30	In uulture cadenti.
	(36) Altahir	14	55	48	30	In telo vel in aquila
	(38) Alrif	30	73	84	0	In cigno. [uolanti.
Aquarius	(40) Libideneb	6	34	20	0	In cauda capricorni.
	(41) Delfin	10	45	48	30	
Pisces	(46) Halferaz	6	65	65	0	In pegaso.
	(47) Humerus equi	17	71	87	0	Ultra cenith. In equo alato.
	(48) Dene[b]caitoz	22	36	32	0	In Cauda caytoz.

Tabula stellarum fixarum ; que est longitudo earum a capite arietis, & que latitudo earum ab equatore diei.

Nomina stellarum fixarum maximarum.	Signa.	Longitudo.		Latitudo.		Pars lati- tudinis.
		Gr.	Min.	Gr.	Min.	
(9) Aldebaran .i. oculus tauri	Taurus	28	2	5	10	S
(11) Raglesiosen .i. pes canis ( <i>sic</i> )	Gemini	4	0	31	50	S
(10) Alhaios .i. stella rubea	Gemini	10	23	22	30	S
*Malkanabar .i. scapula canis	Gemini	17	10	17	0	S
(13) Asaare vel Alhabor. hec est stella magna	Cancer	2	40	39	10	S
(15) Algumeiza	Cancer	14	40	16	10	S
(20) Galbaiced .i. cor leonis	Leo	17	40	0	10	N
(24) Neirpha .i. cauda leonis. Magna est	Virgo	9	40	11	50	N
(26) Azimecalazel .i. stella cum lancea	Libra	11	10	2	0	S
(28) Azimecaramech .i. habens lanceam	Libra	12	30	31	30	N
(35) Anazaliaka vel Wega .i. aquila cadens	Capricornus	2	30	62	0	N
*Fonmahout .i. os piscis	Aquarius	22	10	23	1	S
(47) Baelmara vel rigel .i. caput femine	Aries	2	40	26	0	N
*Baelgohol .i. capud demonis	Taurus	14	50	23	0	N
(32) Galbaragraph .i. cor scorpionis	Scorpius	27	40	3	0	S
(36) Araranathair .i. aquila uolans	Capricornus	18	30	29	4	N
(39) Panafadigega .i. cauda galline	Aquarius	24	20	9	0	N
(46) Machanastaraz .i. scapula equi	Pisces	17	20	31	0	N
(1) Galbahahot .i. cor piscis, quod quidam uocant genu femine	Aries	9	3	26	20	N



In this list, in which the Arabic words are very badly spelt, as I have said, there are only three stars which do not appear in the other lists. They are marked with an asterisk. The position of the first, Malkanabar, is not clear; the syllable *abar* points to *abâr* and Alhabor, and suggests the star  $\beta$  Canis Majoris; but the position seems nearer to  $\alpha$  Leporis. As to the position of the second there can be no doubt, as it is the star Fomalhaut ( $\alpha$  Piscis Australis) of the first magnitude. The third is certainly *Algol*, or Medusa's head. The explanation of this may be found in Ideler, p. 88. The Arabs turned Medusa into a demon; hence the expression "*capud demonis*."

### § 31. NOTES ON SOME PASSAGES IN CHAUCER.

It is interesting to inquire whether the Treatise on the Astrolabe throws any light upon other passages in Chaucer. This question was taken up by Mr Brae as far back as the year 1851, when he published a series of useful and suggestive articles on the subject in Notes and Queries. Some time afterwards, when making some similar investigations for myself, I came to conclusions of which some were erroneous, and made some mistakes which, if I had sooner become acquainted with Mr Brae's articles, I should not have made.<sup>1</sup> In what I have now to say, I hope the reader will ascribe to Mr Brae's teaching whatever is right, and put down to my own blundering whatever is wrong. I have no desire to claim any credit in the matter, and only make the following observations for the convenience of readers and future editors.

The passages which I quote are cited from the Aldine edition of Chaucer, edited by Dr Morris.

- I. ——"the yonge sonne  
Hath in the Ram his halfe cours ironne,"—*Prol.* 7.

The difficulty here really resides in the expression "his halfe cours;" which means what it says, viz. "his half-course," and not, as Tyrwhitt unfortunately supposed, "half his course." The results of the two

<sup>1</sup> I beg leave to assure Mr Brae that the discrepancy which he remarks upon in his edition of the Astrolabe, p. 81, was wholly accidental. I believe it arose from my having read his articles too hurriedly, and missing the point of some of them. I had too much of my own work to do to attend much to the proofs which Mr Furnivall sent me. It was not till some time afterwards that I felt convinced about Mr Brae's explanation of the "Ram."

explanations are quite different. Taking Chaucer's own expression as it stands, he tells us that, a little past the middle of April, "the young sun has run his half-course in the Ram." Turning to Fig. 1, we see that, against the month "Aprilis," there appears in the circle of zodiacal signs, the latter half (roughly speaking) of Aries, and the former half of Taurus. Thus the sun in April runs a half-course in the Ram, and a half-course in the Bull. The former of these was completed, says the poet; which is as much as to say, that *it was past the eleventh of April*.<sup>1</sup>

The sun had, in fact, only just completed his course through the *first* of the twelve signs, as the said course was supposed to begin at the vernal equinox. This is why it may well be called "the *yonge sonne*;" an expression which Chaucer repeats under similar circumstances in the Squyeres Tale, part ii. l. 39.

Chaucer makes the sun enter Aries on the 12th of March (Astrol. ii. 1). In 1865, it entered the sign on the 20th, and in 1871 on the 21st. We thus find a difference of 8 or 9 days between the reckoning in his time and ours. In 1871, the sun entered Taurus on the 20th of April; subtracting 9 days, it entered Taurus, in Chaucer's time, on the 11th of April.<sup>2</sup> This difference is worth remarking.

If the reader wants further confirmation of this view, he may find it in Mr Brae's edition, pp. 65 to 68, and 81 to 84. Compare the expression—"because a sign rises *in the middle of each month*;" p. 47 of Essays on Chaucer, Part I (Chaucer Society).

II. "Some wikke aspect or disposicioun  
Of Saturne, by som constellacioun."  
*Knyghtes Tale*, 229.

"But I moste be in prisoun through Saturne;" l. 470.

"My cours, that hath so wyde for to tourne;" l. 1596.

"Myn lokyng is the fadir of pestilens;" l. 1611.

<sup>1</sup> This is wholly due to Mr Brae. My own explanation, that Chaucer referred to the *constellation*, not the *sign* of the Ram, I now see to be wrong. Mr Brae shews that Chaucer (and perhaps we may add Lydgate and others) *never* refers to the *constellations*, but *always* to the *signs*. Let this, then, be remembered in future.

<sup>2</sup> This is a sufficiently close approximation for our purpose. The difference between Chaucer's reckoning and ours may be said to vibrate, just at present, between 8 and 9 days. For more exact calculations, the *hour* of the day would have to be taken into account.

Cf. "wykkid planete, as saturne or Mars"; Astrol. ii. 4. 21; notes in Wright's edition, ll. 2453, 2457; and Piers the Plowman, B. vi. 327. Add to these the description of Saturn—"Significat in . . . *quar-tanis, lepra, scabie, in mania, carcere, . . . submersione, &c.* Est infortuna." Johannis Hispanensis Isagoge in Astrologiam, cap. xv.

III. "The thridde night"—*Kn. Ta.* 605.

"right as hir day

Is gerful, right so chaungeth hire aray;" l. 680.

"And this day fyfty wykes, fer ne neer;" l. 992.

See note by me, in Notes and Queries, 4 S. ii. 243, reprinted in Mr Furnivall's Temporary Preface to Chaucer, p. 103, and Mr Morris's edition in the Clarendon Press Series, p. 144. I do not yet see any point to correct in it. Mr Brae's explanation of "fyfty wykes" must, however, be also consulted; see Notes and Queries, 1 S. iii. 202, 252. I make out that the year which would give the days mentioned is 1387.

IV. "Allas! thou felle Mars, allas! Juno;" *Kn. Ta.* 701.

"Nough beth forgeten the *infortune* of Mart;" l. 1163.

"By manasyng of Martz, right by figure;" l. 1177.

Cf. "wykkid planete, as saturne or Mars;" Astrol. ii. 4. 21; "the *infortunyng* of an assendent," &c.; ii. 4. 26; notes in Wright's edition to ll. 1749 and 2023; and Tyrwhitt's Glossary, s. v. "Puella." See also Man of Lawes Tale, 203.

V. "As is depeynted in the sterres above;" *Kn. Ta.* 1179.

"For in the sterres, clerere than is glas," &c. *Man of Lawes Ta.* 96.

"The heven stood that tyme fortunate."—*Mareh. Ta.* 726.

See Astrolabe, ii. 4; cf. Tyrwhitt, note to C. T. 4617.

VI. "And after was sche maad the loode-sterre;" *Kn. Ta.* 1201.

"Hire sone is eek a sterre, as men may see;" l. 1203.

Cf. Ovid's Fasti, ii. 153—192; especially 189, 190—

"Signa propinqua micant. Prior est, quam dicimus Arcton,  
Arctophylax formam terga sequentis habet."

The nymph Callisto was changed into *Arctos*, or the Great Bear. This was sometimes confused with the other *Arctos*, or Lesser Bear, in which was situate the "lodestar" or Pole-star. Chaucer has followed

this error. Callisto's son, Arcas, was changed into Arctophylax or Boötes; here again, Chaucer says "a sterre" when he means a whole constellation; as, perhaps, he does in other passages. See Smith's Classical Dict. s. v. "Arctos" and "Callisto;" also Ideler's remarks on the Greater and Lesser Bears, in his "Untersuchungen über die Bedeutung der Sternnamen;" pp. xv, and 1—32.

VII. "And in hire hour he walketh forth a paas."—*Kn. Ta.* 1359.  
See also ll. 1413, 1509.

See Tyrwhitt's note, C. T. 2219; *Astrol.* ii. 10 and ii. 12. My note on pp. 23 and 24 shews the whole method of working this. Thus, to find the 23rd hour of Sunday, begin with 1, to the left of the upright line, and the 23rd figure is 6, i. e. Venus. Hence, when two hours are still wanting to complete Sunday, we are just beginning the 23rd hour of Sunday, or the hour of Venus. Two hours later we come to sunrise and the figure 2, i. e. Diana; so that Emelye sets off in the first hour of Monday, or the hour of the Moon. Three hours later still, we come upon the figure 3, i. e. Mars, being the fourth hour inequal of Monday, as Tyrwhitt explains.

VIII. "al his fantasye  
Was torned for to lerne astrologye,  
And cowde a certeyn of conclusiouns;" *Mill. Ta.* 5.

"His almagest, and bookes gret and smale,  
His astrylab[i]e, longyng to his art,  
His augrym-stoones, leyen faire apart;" *id.* l. 22.

Observe Chaucer's avowal of his disbelief in astrology, *Astrol.* ii. 4. 36, and *Mill. Ta.* 265; note the expression "a certeyn of conclusiouns;" *Astrol. Prol.* 10; his mention of "ptholome," *Astrol.* i. 17. 6 (see note to the line), and cf. Wyf of Bath, *Prol.* 324, and *Sompn. Ta.* 589; note that the spelling *astrylabe* of the Harl. MS. is clearly wrong; and cf. the expression "nombres in Augrym;" *Astrol.* i. 9. 3. See also Wright's note to his l. 3210.

IX. "That now on Monday next, at quarter night,  
Shall falle a reyn;" *Mill. Ta.* 330.

When all the day of Monday, and a quarter of the night has past, 15 planetary hours are completed, and the 16th is beginning. Now the 16th hour of Monday (see scheme on p. 24) is the hour of *Saturn*.

ASTROLABE.

d

Cf. "Thorwgh *flodes* and þourgh foule wederes · frutes shull faille,  
And so sayde *saturne* · and sent þow to warne;"  
*Piers the Plowman*, B. vi. 326.

X. The adjective *rom*, spacious, ample, and its comparative *rommer* (Reeves Tale, 206, 225), occurs again in *Astrol.* i. 2. 2.

XI. "Owre hoste sawh [wel] that the brighte sonne  
The arke of his artificial day hath i-ronne,  
The fourthe part, of [and?] half an hour and more, . .  
He wist it was the *eighttene* day  
Of April, that is messanger to May . . .  
And therefore by the schadwe he took his wit  
That Phebus, which that schoon so fair and brighte,  
Degrees was five and fourty clombe on highte,  
And for that day, as in that latitude,  
Hit was *ten* of the klokke, he gan conclude . . .  
The fourthe party of this day is goon."

*Man of Lawes Prol.* 1—17.

For the "artificial day," i. e. the actual duration of the day from sunset to sunrise, see *Astrol.* ii. 7. The equality of a shadow with its object of course gives an elevation of  $45^\circ$ ; but the reason for alluding to this is made even more clear by noticing that the scale of *Umbra Recta* (Fig. 1) terminates with the equality of the shadow, and with  $45^\circ$ . For *eighttene day*, Tyrwhitt has *eighte and twenty day*, which he could not explain; see his note. But we must certainly read *eighttene*, as in the Harl. MS. On April 18, the sun was in the 6th of Taurus (see Fig. 1), and the use of a globe<sup>1</sup> will easily shew that the sun's altitude in that degree, at 10 o'clock, was somewhere about  $45^\circ$  or  $46^\circ$  degrees,<sup>2</sup> speaking roughly. But Mr Brae has calculated it exactly, and his results are, that the time when the sun was  $45^\circ$  high on April 18, was 9h. 58m., or only wanting 2 minutes of 10 o'clock. This is even a closer approximation than we might expect, and leaves no doubt as to the correctness of the numbers "*eighttene*" and "*ten*." See Mr Brae's edition of the *Astrolabe*, pp. 68 and 80.

April 18 in Chaucer's time corresponds to about April 26 now. On April 26, 1871, the sun rose, at London, at 4h. 45m., and set at

<sup>1</sup> Any scientific person will naturally object to such a rough way of calculation as resorting to the use of a globe, but I prefer it just *because* it is a rough way of calculating, for we expect no *very* great exactitude *here*. Besides, it is so easy, and so useful in *checking* a closer calculation.

<sup>2</sup> In Mr Furnivall's *Temp.* Pref. to Chaucer, p. 91, I wrote "about 47 degrees;" I see now that is too much.

7h. 13m., giving a day of 14h. 28m., the fourth part of which is at 8h. 22m., or, with quite sufficient exactness, at half-past eight. This would leave a whole hour and a half to signify Chaucer's "half an hour and more," which, be it observed, was the host's *first* rough guess, *before* taking a more exact observation. But the matter is made much clearer by looking at it more closely. How did the host *see* that the 4th part of the day was past? Of course he looked at the sun. But what did he know about the sun? He could only (as we shall see) have noted the point of the horizon at which it rose; for I cannot believe that any one can do better than accept Mr Brae's equally simple and ingenious explanation, that the host made his guess from observing the extent of the sun's *azimuthal* arc from sunrise to sunset. The method was incorrect; but we have clear proof (as Mr Brae again rightly suggests) that Chaucer<sup>1</sup> actually confounded the azimuthal arc with the hour-angle, in *Astrol.* ii. 29; see the Additional Note. Set the 6th degree of Taurus on the E. horizon on a globe, and it is found to be  $22^{\circ}$  to the N. of the East point, or  $112^{\circ}$  from the S. point; doubling this, gives an azimuthal arc of  $224^{\circ}$  (exactly as Mr Brae calculates it in his edition, p. 70); whilst halving it, gives an azimuthal arc from sunrise of  $56^{\circ}$ . All, in fact, that the host did, was to observe that the sun had gone more than half the distance from the point of sunrise to the S. point, which he might easily do. In numbers, this gives, as was said, an azimuthal arc of  $56^{\circ}$  from sunrise, and, therefore,  $56^{\circ}$  also from the South. This would happen, as may be seen even by a globe, at about a quarter past nine; but Mr Brae has made the calculation, and makes it 20 minutes past nine. This makes Chaucer's "halfe an houre and more" to stand for half an hour and ten minutes; an extremely neat result, and confirming the preceding calculations and assumptions.<sup>2</sup> We conclude then that what "our host saw" was, that the sun had

<sup>1</sup> I suppose others did the same. He obviously took it from Messahala, whom he here follows closely.

<sup>2</sup> It follows that the day mentioned in the opening lines of the Prologue was either the 17th or the 16th. It was the 17th, if all the tales were told in one day; it was the 16th, if the Man of Lawe began the second day's series of tales. I believe Mr Furnivall is right here, and that the Man of Lawe *did* begin the second day. For how was the host to observe the azimuthal arc of the sun, if the pilgrims had greatly changed their position since sunrise? And why, if they had been busy tale-telling, should the host have said, "let us nat mowlen thus



gone more than half-way from his point of rising to the southern point of the horizon, and he supposed (from his wrong assumption of the equality of the azimuthal arc with the hour-angle) that more than the fourth part of the day was gone, by more than half an hour.<sup>1</sup> He then further observed the sun's altitude to be about 45°, from which he pronounced it to be ten o'clock. The latter observation was a more correct and closer one.

XII. "O firste mevyng cruel firmament,  
With thi diurnal swough that crowdest ay,  
And hurlest al fro est to occident,  
That naturally wold hold another way."

*Man of Lawes Ta.* 197.

See note in this volume, p. 76; and note to the line in "Specimens of English, A.D. 1298—1393," ed. Morris and Skeat.

XIII. "Infortunat ascendent tortuous,  
Of which the lordes [*read* lord is] helples falle, alas!  
Out of his angle into the derkest hous;  
O Mariz Attezere [*read* O Mars, O Atazir], as in this caas;  
O feeble moone, unhappy been thi paas;  
Thou knettest the ther thou art nat receyved,  
Ther thou wer wel, fro thennes artow weyved;"

*Man of Lawes Ta.* 204.

For the word "tortuous," see *Astrol.* ii. 28. 19; the tortuous signs are from Capricorn to Gemini inclusive; the most tortuous of these are Pisces and Aries. Of these two, Aries is the mansion of Mars. We may then suppose Aries to be the tortuous ascending sign, and the lord of the ascendent to be Mars; see *Astrol.* ii. 4. The "derkest hous" is perhaps the weakest of the *cadent* houses, or probably the 6th, which had just set. The "houses," arranged in order of "power," are as follows: the four "angles," or the 1st, 10th, 7th, and 4th; the "succeedents," the 2nd, 11th, 8th, and 5th; and the "cadents," or 3rd, 12th, 9th, and 6th. In other words, Mars, instead of being in the ascendent, had "fallen helplessly" beneath the western horizon. *Atazir* or *Atacir* is the Spanish spelling of an Arabic word denoting.

*in ydelnesse?*" Perhaps there may be some force too in l. 90—"But of *my* tale how schal I do *this day*?" The 16th suits the opening lines even better than the 17th does. See Note I. above.

<sup>1</sup> The *fact* was, that the fourth part was gone, by at least an hour and a half; as has been said. But this was a thing which our host could not well have *seen*, by a mere glance at the sky.

*influence* ; as explained in Dozy, Glossaire des Mots Espagnols dérivés de l'Arabique, p. 207. See note on the line in "Specimens of English, A.D. 1298—1393," ed. Morris and Skeat. With the word "knet-test," cf. "ioigned ;" Astrol. ii. 4. 33. With "receyved," cf. Astrol. ii. 4. 30. With "Ther thou wer wel," cf. "he is wel," Astrol. ii. 4. 34. The exaltation of the Moon was in Taurus ; its depression, or worst position, in the opposite sign of Scorpio. It seems to have been far from its best position.

I subjoin the following extract from Bailey's Dictionary, vol. ii. ed. 1731—"ANGLE (in *Astrology*) certain houses of a scheme of the heavens ; the first house or horoscope is called the angle of the *East* ; the seventh, the angle of the *West* ; the fourth house, the angle of the *North* ; the tenth house, the angle of the *South*." Bailey is not much to be depended on, so I add another authority.

"DE INVENIENDIS XIII. DOMIBUS.

"In omni hora firmamentum in duodecim partes distribuitur, quæ domus dicuntur, et prima incipit a gradu ascendente, et comprehendit totidem gradus sequentis signi, et sic usque ad duodecim domus per gradus æquales.

"Sed est alia diuisio per inæquales gradus pro terræ latitudine, quæ sic inuenitur. Ponitur gradus ascendentis in oriente, qui est principium primæ domus ; sed septima incipit ab opposito, per gradus totidem ; et gradus tangens lineam meridianam, est initium domus decimæ. Quartum siue imum cœli domicilium incipit ab opposito eius per gradus totidem, *et hæ quatuor domus dicuntur Anguli*. Et gradus inuentus in fine lineæ horæ decimæ, est principium secundæ domus. In fine octauæ inuenitur tertia. In fine quartæ, quinta ; in fine secundæ, sexta ; octaua uero domus per secundum inuenitur, nona per tertiam, et per quintam undecima, per sextam duodecima, per oppositum. Et secunda, quinta, octaua, undecima sunt *post Angulos succedentes*. Tertia, sexta, nona, duodecima sunt *lapse, vel cadentes ab Angulis*."—Epitome Astrologiæ, a Johanne Hispalensi ; cap. xxi.

This useful quotation well illustrates the "Astrolabe," pt. ii. sect. 36, 37 ; it explains the phrase "as in angle," i. e. "as for instance,

in an Angle, or one of the four principal houses ;” Astrol. ii. 4. 28 ; and also the phrase “ in a succedent ;” Astrol. ii. 4. 29. Moreover it suggests that “ the meridional angle ” is only another name for the “ tenth house ;” cf. note XX below.

XIV. “ Of viage is ther noon eleceioun . . .

Nought when a roote is of a birthe i-knowe ?

*Man of Lawes Ta.* 214.

We learn from the third tract in MS. G., p. 10, that there are four “ mobill ” signs, Aries, Cancer, Libra, and Capricorn ; four “ fix ” signs, Taurus, Leo, Scorpio, and Aquarius ; and the rest are called “ signes comune.” It is added that the right time for going a journey is when the moon is a “ mobill ” sign ; if it were in a “ fix ” sign, you may not go a journey, but you may build a city ; if in a “ comune ” sign, you may not travel far, nor yet build, but you may safely go to a city, and live in it ; see also Tyrwhitt’s note. The whole of Book iv. of the *Epitome Astrologiæ* of Johannes Hispalensis is “ De Electionibus,” and the title of cap. xv. is “ Pro itinere.” For the word “ roote,” see Astrol. ii. 44, and the Glossarial Index.

XV. “ Min asce[nde]nt was Taur, and Mars therinne ; ”

*Wyf of Bathes Prol.* 613.

The sign in the ascendent at her birth was Taurus, the mansion of *Venus*. Moreover, Taurus was a “ feminine ” sign. Mars being in the mansion of Venus is sufficiently significant ; see Chaucer’s *Compleynt of Mars*. Cf. “ si fuerit [Mars] in Tauro, erit multorum puerorum,” &c. *Liber Messahalæ super significationem Planetarum*, cap. iii.

XVI. “ And thus, god wot, Mercury is desolate

In Pisces, wher Venus is exaltate,

And Venus faylith wher Mercury is reysed.”

*Wyf of Bathes Prol.* 703.

The exaltation of Venus is in Pisces, which is also the dejection or depression of Mercury. The exaltation of Mercury is in Virgo, which is also the dejection of Venus. This is because the signs Pisces and Virgo are exactly opposite ; see Fig. 1 or Fig. 2. This was explained by Tyrwhitt in his note on the line.

XVII. "The moone that at noon was thilke day  
That January hadde weddid freissche May  
In tuo of Taure, was into Cancre gliden."—*March. Tu.* 642.

Tyrwhitt altered *tuo* to *ten*, and gave his reason; see his note. He was wrong in making his calculation from the moon's *mean* motion, as it differs considerably from her *actual* motion. The question is simply, can the moon move from the 2nd degree of Taurus to the 1st degree of Cancer (through very nearly two whole signs, or 59 degrees) in *four days complete* (l. 649)? And, in particular, can the moon do this in the middle of June? Mr Brae (note on p. 93) says decidedly, that examples of it can be found in every almanack. In one of the volumes of the Nautical Almanack, I find one very opposite instance, which I here cite. In June, 1866, the moon's longitude at noon was 30° 22' on the 9th, and 90° 17' on the 13th; i. e. the moon was in the first degree of Taurus on the former day, and in the first degree of Cancer on the latter day, at the same hour; which gives a degree more of change of longitude than we require. There is therefore no objection to the reading *tuo*, which the majority of MSS. (I believe) support.

XVIII. ——"er that dayes eyght  
Were passid of the moneth of Juil" (*sic*, wrongly);—*March. Tu.* 888.

"He [*the sun*] was that tyme in Gemines,<sup>1</sup> as I gesse,  
But litel fro his declinacioun  
Of Canker, Joves exaltacioun,"—*id.* l. 978.

The sun had not quite entered Cancer, but was still in Gemini. A glance at Fig. 1 shews that the sun would enter Cancer about June 12.<sup>2</sup> The former passage must therefore refer to June 8; and the reading *Juil* is out of the question. We must, of course, read *Juin*, whatever the scribes of the MSS. may have written to the contrary. But probably some of the MSS. will be found to have the right reading.

His "declination of Cancer" means the sun's *maximum* northern declination, which he attains at the period of the summer solstice, exactly upon entering Cancer. Now the summer solstice must of course be in June, not July.

<sup>1</sup> Read "Gemini," the ablative plural.

<sup>2</sup> The sun entered Cancer in 1871 on June 21. A difference of 9 days, as explained above, gives June 12.

Cancer is the exaltation of Jupiter, and the depression of Mars.

The correction *Juin* for *Juil* is due to Mr Brae, and was first published in 1851. See his edition of the *Astrolabe*, p. 67.

XIX. "The last Idus of March, after the yeer ;  
Phebus the sonne ful joly was and cleer,  
For he was neigh his exaltacioun,  
In Martes face, and in his mansioun  
In Aries, the colerik, the hote signe ;"—*Squyeres Ta.* i. 39.

"The last Idus" is the very day of the Ides, i. e. March 15. The sun had entered Aries only three days before, on the 12th ; see *Astrol.* ii. 1. 4. The sun was therefore in the 4th degree of Aries. Aries was called the exaltation of the Sun,<sup>1</sup> and the sun's exaltation was supposed to take place in the 19th degree of the sign in particular, so that he was "nigh his exaltation," and approaching it. The word "face" is technical ; it meant the third of a sign ; see *Astrol.* ii. 4. 38. In Aries, the first face is that of Mars (where the Sun was), the second that of the Sun, and the third that of Venus. The word *his* in "his mansioun" refers of course, as Tyrwhitt says, to Mars, not to Phebus ; for Aries was the mansion of Mars. The sign Aries is said in MS. G. Tract 3, p. 11, to be *choleric*, *fier*y, and *masculine* ; cf. Tyrwhitt's note.

XX. "Phebus hath laft [*read left*] the angle merydyonal,  
And yit ascendyng was a best roial,  
The gentil Lyoun, with his Aldryan."—*Sq. Ta.* i. 255.

Four of the astrological houses were called "angles ;" of these, the Southern angle, or "angle meridional," was the tenth house, corresponding to the time from 10 A.M. (at the equinox) to noon. Thus, the sun "leaving the angle meridional" is merely another way of saying that it was past noon. Now, at noon on the 15th of March, in Chaucer's time, the first point of Leo would be on the horizon ; see Mr Brae's edition, p. 87. We need not lay any stress on the word *yit*, which is not always equivalent to the modern *still*, and need not imply any very long continuance.<sup>2</sup> I take the passage to mean merely this, that

<sup>1</sup> In Mr Furnivall's *Trial-forewords* to Chaucer's *Minor Poems*, there is an unfortunate misprint in footnote 3, p. 87. Read—"Aries is the mansion of Mars, and the exaltation of the Sun," instead of "Venus." The rest of the table is correct.

<sup>2</sup> Only nine lines above, *and yit* is put for *nevertheless* ; *yit* is used for a very short continuance of time in the *Second Nonnes Tale*, l. 442, and for a very long period in the *Man of Lawes Tale*, l. 536.

the sun had passed the meridian, and now the sign Leo, with his Aldryan, was ascending. Considering the frequent shifting of *r* in English, as in *brid* for *bird*, &c., we can have little hesitation in identifying Aldryan with the star *Aldurin* or *Aldiran* mentioned in the "List of Stars marked on a Rete" above; Chaucer makes a much greater change than this, when he turns Ariadne into Adriane.

For determining Aldiran's<sup>1</sup> position, we have, in Table III, its greatest altitude expressed as 48 degrees, for a latitude of about 48 degrees, or a co-latitude of 42 degrees. This makes it 6 degrees north of the equator, showing that in Table I "6. 0. S" is an error for "6. 0. N." One table makes its longitude 12 degrees, the other 14 degrees less than that of Cor Leonis. The only star I can see near this position is  $\theta$  Hydræ, which may have been considered as on the fore-paws of the Lion; a result which may be illustrated from Lane's Arabic Lexicon, p. 962, which shows that "the Dhirá'án" of the Arabs, or fore-legs of the Lion, were extended even as far as  $\alpha$  and  $\beta$  of Gemini, and  $\alpha$  and  $\beta$  of Canis Minor. The only remarkable point about this small star is that, near London, it rises but a very little before Cor Leonis, and even at Paris would not long precede it. It may therefore have been looked on as a herald of that celebrated star. But this is mere conjecture, and I leave the working out of this question to others better qualified to do it. The reader should, however, see Mr Brae's remarks in his edition of Chaucer's Astrolabe, pp. 77, 87. If Cor Leonis were on the horizon, the time would be just 2 P.M., which looks as if Chaucer here makes the "angle meridional" to extend for a couple of hours *after* noon instead of *before* it.

It is not clear what authority Speght had for declaring Aldryan to be "a star on the neck of the Lion." In the List already referred to, it is said to be "in fronte Leonis."

<sup>1</sup> *Aldiran* is a dual form, and means "the two fore-paws," viz. of the Lion. One of these was called the "extended" paw, and reached as far as  $\alpha$  Geminorum; the other, or "drawn up" paw, was bent so as to end with  $\alpha$  and  $\beta$  Canis Minoris. The star named Aldiran must there be sought near the spot whence both fore-legs branch off. Though not very explicit, this does, after a manner, limit its position. The name Aldiran is probably an abbreviation of some longer phrase, just as Algol is put for Ras Algol.



- XXI. "Now dauncen lusty Venus children deere;  
For in the fisch her lady sat ful heyghe,  
And loketh on hem with a frendly eyghe;"—*Squ. Ta.* i. 264.

I take "Venus children" to mean here simply men and women; see a similar expression in the *Knights Tale*, ll. 1628 and 1629. In the next line, *her* means *their*, corresponding to *hem* for *them* below. Their lady Venus was then in Pisces; and Pisces was the *exaltation* of Venus, which explains "full heyghe." See Tyrwhitt's note to C. T. 6284.

- XXII. "As rody and bright, as is the yonge sonne  
That in the Ram is *ten* degrees i-ronne."—*Squ. Ta.* ii. 39.

I suppose *ten* is due to some eccentricity on the part of the scribe of the Harleian MS. Tyrwhitt has "*foure* degrees;" which can no doubt be supported by MS. authority. On the day before, March 15, the sun was in the 3rd degree; so that on March 16 he was in the 4th degree. "Non heigher was he," in l. 41, means that the sun was only four degrees above the horizon; cf. ll. 47, 48.

- XXIII. "And this was on the sixte morwe of May . . .  
That yevest, after thy declinacioun,  
To ilk of hem his tyme and his sesoun,  
As that thin herborwe chaungeth low and heighe . . .  
That thou next at this apposieoun [*read* opposicioun]  
Which in the signe shal be of the Leoun," &c.  
*Frank. Ta.* 178—330.

We see from Fig. 1, that the 6th of May is opposite the 23rd degree of Taurus, which is sufficiently correct. "After thy declinacioun" means "according to thy declination." The sun's declination changes from day to day, and with it the solar power and heat; so that the vegetable kingdom fails or grows according as the sun's "harbour" or position in the ecliptic makes his daily meridian altitude to be low or high. The power of the moon over the tides is referred to in l. 318; and the dependence of lunar upon solar light in l. 322. Cf. *Astrol.* ii. 46. The highest tides occur when the sun and moon are either in conjunction or opposition; the latter is here fixed upon. But if the sun be in the 23rd degree of Taurus, the moon, in opposition, is in the 23rd degree of Leo, as Chaucer says. If the sun and moon could remain always in opposition, says Aurelius, we might hope to have always a high tide or

“spring-flode” (l. 342). To secure this, the moon must go no faster than the sun (l. 340); and, as the moon in opposition is full, there would be a full moon all the while (l. 341).

XXIV. “This book spak mochi of operaciouns,<sup>1</sup>  
 Touchyng the xxviii. manciouns  
 That longen to the mone.”—*Frank. Ta.* 401.

The 28 “moon-stations” of the Arabs are given in Ideler’s *Untersuchungen*, p. 287. He gives the Arabic names, the stars that helped to fix their positions, &c. See Mr Brae’s edition of the *Astrolabe*, p. 89. For the influence of the moon in these mansions, we must look elsewhere, viz. in lib. i. cap. xi, and lib. iv. cap. xviii, of the *Epitome Astrologiæ* of Johannes Hispalensis. Suffice it to say that there are 12 “temperate” mansions, 6 “dry” ones, and 10 “moist” ones.

XXV. “Phebus wax<sup>2</sup> old, and hewed lyk latoun,  
 That in his hoothe declinacioun  
 Schon as the burned gold, with stremes brighte;  
 But now in Capricorn adown he lighte,” &c.—*Frank. Ta.* 509.

The sun, in his “hot” or extreme N. declination, shines brightly enough at the summer solstice; but he was now at his lowest altitude, at the winter solstice. He entered Capricorn on the 13th of December, as Chaucer says himself; *Astrol.* ii. l. 12. See Fig. 1.

XXVI. “His tables Tollitanes forth he broughte,” &c.—*Frank. Ta.* 537.

See the whole passage.

Here Chaucer mentions the Toletan tables, or tables for the latitude of Toledo; see Tyrwhitt’s note. For the “collect” and “expans” years, see *Astrol.* ii. 44, and the Glossarial Index. Any one who is curious to see such tables may find them in Ptolemy’s *Almagest*, lib. vi. and lib. ix. Ptolemy’s expanse years go from 1 to 25, or from 1 to 18, and his collect years by multiples of 25 or 18; whereas Chaucer’s go by multiples of 20. For “root,” see the Glossarial Index. “Argument” is an astronomical term still in use; see *Entere* in the Glossary. For the “proportionels convenientis,”

<sup>1</sup> Printed “of *this* operaciouns,” which will not scan. Observe that xxviii. in Old English is always to be read “eight and twenty,” never “twenty-eight.”

<sup>2</sup> Read “wex” or “wox.”

see Astrol. ii. 44. 22. Next come the lines, which in the Harleian MS. are as follows :—

“And by his *thre* speeres in his worching,  
 He knew ful wel how fer Allnath was schove  
 Fro the heed of thilk fix Aries above,  
 That in the *fourthe* speere considred is.”

There cannot be a moment's doubt that, as Mr Brae well shows in his Preface, p. 13, we must read *eighte* for *thre*, and *ninthe* for *fourthe*. As the passage stands, it is mere nonsense. Tyrwhitt has the right readings in both places.<sup>1</sup> The reader has only to glance at Fig. 10, and he will see at once that the seven inner spheres are spheres of planets. The eighth is the sphere of fixed stars, and Alnath, being a fixed star ( $\alpha$  Arietis), was in it. But the head of the *fixed* Aries, or the true equinoctial point, was in the sphere *above* it, the *ninth* sphere.

The exact amount of the precession of the equinoxes (which is what Chaucer here alludes to) could be ascertained by measuring from time to time the distance between the true equinoctial point and the nearest convenient bright star. The star Alnath would do well, being of the first magnitude; indeed, in the time of Hipparchus, its distance from the true equinoctial point was but a few degrees. At the present time, it is “schove” some 35° off, in longitude. For the word “face” in l. 552, see Note XIX. Not only every sign, but every “face” had its planet; hence the phrase “in *whos* face.” A “term” is the Lat. *terminus*. Besides the division of a sign into three equal parts called *faces*, we find unequal divisions called *terms*. Thus, of Aries, the first 6 degrees are a term of Jupiter, the next 6, a term of Venus; the next 8, of Mercury; the next 5, of Mars; and the last 5, of Saturn.

XXVII. “By nature knew he ech ascensioun  
 Of equinoxial in thilke toun;  
 For whan degrees fyftene were ascendid,  
 Thanne crew he, it mighte not ben amendid . . .  
 Whan that the moneth in which the world bigan,  
 That highte March, whan God first made<sup>2</sup> man

<sup>1</sup> I may just observe that *thre* spoils the scansion of the line, whilst *eight-e* (A.S. *eahtha*) is a dissyllable, and suits well enough.

<sup>2</sup> Printed ‘made first,’ which scans badly.

Was complet, and y-passed were also,  
 Syn Marche bygan, *tuay monthes* and *dayes tuo* . . .  
 Cast up his eyghen to the brighte sonne  
 That in the signe of Taurus had ironne  
 Twenty degrees and oon, and somewhat more ;  
 He knew by kynde, and by noon other lore,  
 That it was prime, and crew with blisful steven ;  
 'The sonne,' he sayde, 'is clomben up on heven  
*Twenty degrees and oon, and more i-wis.'*"

*Nonne Prestes Ta.* 37,367.

I once proposed an explanation of this which I now entirely give up ; it is printed in Mr Morris's small edition of Chaucer for the Clarendon Press, but it is not worth while to repeat it. My difficulty was wholly caused, I now see, by neglecting the word *ech* in the first line. Chaucer says that the cock knew *each* ascension of the equinoxial, and crew at each. That is, he crew every hour, as 15° of the equinoxial make an hour. Chaucer adds that he knew the hour better than an abbey-clock ; see l. 34. This tells us, clearly, that we are to reckon clock-hours, not the unequal hours of the artificial day. Hence the *prime* mentioned below was at a clock-hour, at 6, 7, 8, or 9, suppose. The next point is the date ; and here I am again guided, almost wholly, by Mr Brae's work. The day meant is certainly May 3, because the sun had passed the 21st degree of Taurus ; see Fig. 1. The reading *tuay monthes and dayes tuo* is certainly wrong ; it ought to be *thritty dayes and tuo*, as in Tyrwhitt, and in Mr Morris's edition for the Clarendon Press. The date, May 3, is playfully denoted by saying that 'March was complete, and also (since March began) thirty-two days more had passed.' The words "since March began" are parenthetical ; and we are, in fact, told that the whole of March, the whole of April, and two days of May were done with. March was then considered the first month in the year, though the year began with the 25th, not with the 1st ; and Chaucer alludes to the idea that the Creation itself took place in March.<sup>1</sup> The day, then, was May 3, with the sun past 21

<sup>1</sup> This may be illustrated from the Old English Menologium ; see Grein's Bibliothek der Angelsächsischen Poesie, vol. ii. p. 2.

"Swylce eac rimeræftige

On þa ylcen tíð · emniht healdad,

degrees of Taurus. The hour must be had from the sun's altitude, here said to be '*Twenty* degrees and oon.' But this is a mere error, due to the scribe repeating the phrase by mistake; most MSS. (see Tyrwhitt's note) have '*Forty* degrees and oon.' Oddly enough, as Mr Brae points out, the oldest editions had '*Forty* degrees and oon' in *both* places, till Francis Thynne corrected the text, and gave the correct readings. See Thynne's *Animaduersions*, &c.; ed. G. H. Kingsley (E. E. T. S.), p. 50. I again use a globe, and find that the sun would attain the altitude of 41° nearly at 9 o'clock. Mr Brae has calculated it, and makes it 'nine o'clock to the minute.' It follows that *prime*, in this passage, signifies the *end of the first quarter of the day*, reckoned from 6 A.M. to 6 P.M. What *prime* means in all cases, I do not pretend to say. It is a most difficult word, and I think was used loosely. It might mean the beginning or the end of a period; and the period might be an hour, or a quarter of a day. I think it was to obviate ambiguity that the end of the period was sometimes expressed by *high prime*, or '*passid prime*,' or '*prime large*;' we also find such expressions as *half prime*, *halfway prime*, or *not fully prime*, which indicate a somewhat long period. For further remarks, see Mr Brae's *Essay on Chaucer's Prime*, in his edition of the *Astro-labe*, p. 90. I add some references for the word *prime*, which may be useful. We find *prime* in Kn. Ta. 1331; Mill. Ta. 368; March. Ta. 613; Pard. Ta. 200 ("Long erst than *prime* rong of any belle," which goes to show that *prime* was a *fixed* time of day); Schip. Ta. 206; Sir Thopas, 114 ('fully prime'); also *passed prime* in Re. Prol. 52,<sup>1</sup> Fre. Ta. 178, Schip. Ta. 88; *prime large* in Sq. Ta. ii. 14. See also *prime* in Troil. and Cress. ii. 992 (Morris); *passed prime*, id. ii. 1095; *an houre after the prime*, id. ii. 1557; *prime*, id. v. 15.

XXVIII. "The soune fro the south line is descendid  
So lowe, that it nas nought to my sight

---

Forþan wealdend god · worhte æt frymðe  
On þý selfan dæge · sunnan and mōnan."

'As also arithmeticians

At that very time consider the equinox,  
Because all-ruling God wrought at the beginning,  
On that very day, the sun and the moon.'

<sup>1</sup> But Tyrwhitt has *half-way prime*, as in the Six-text edition.

Degrees nyne and twenty as in height.

*Foure* on the klokke it was, so as I gesse . . .

Therewith the mones exaltacioun

In *mena Libra*, alway gan ascende." . . .

*Persones Prol.* 2—11.

Besides saying that the sun was  $29^\circ$  high, Chaucer says that his shadow was to his height in the proportion of 11 to 6. Changing this proportion, we can make it that of 12 to  $6\frac{6}{11}$ ; that is, the point of the *Umbra Versa* (which is reckoned by twelfth parts) is  $6\frac{6}{11}$  or  $6\frac{1}{2}$  nearly. This can be verified by Fig. 1; for a straight edge, laid across from the 29th degree above the word "Occidens," and passing through the centre, will cut the scale of *Umbra Versa* between the 6th and 7th points. The sun's altitude is thus established as  $29^\circ$  above the western horizon, beyond all doubt. Now the day of the month was April 18 (see Note XI) if all the tales were told in one day; or April 20, if Mr Furnivall's scheme of four days be admitted; this makes the sun to be either in the 6th or the 9th degree of Taurus. In either case, even the use of a globe will show that the altitude of  $29^\circ$  corresponds closely to four o'clock in the afternoon. Mr Brae gives all the results of his calculations, and makes the altitude of the sun, at 4 P.M. on April 18, 1388 (which is at least near enough, if not the right date altogether), to be  $29^\circ 15'$ . There can therefore be no doubt that the reading *Foure* is right. Some MSS. have *Ten*, which is out of the question, for that would be *after sunset*! Probably (as Mr Brae suggests) the *tenth hour* may have been meant as a gloss to 'Foure'; since 4 P.M. is the tenth hour, reckoning from 6 A.M.

We have now to consider the last part of the passage. I make out, merely from the globe, that the point of the zodiac then ascending on the Eastern horizon was about the 4th or 5th degree of Libra. Mr Brae makes the altitude of a certain star which he puts in R. A. 12h. 25m., and N. D.  $6^\circ 43'$ , to be  $4^\circ 20'$ ; and I believe my result is much the same as his. At any rate, I feel confident in saying that only some few degrees of Libra had ascended. But, granting all this, how are we to read the passage? Mr Brae proposes to alter it, and to read, "In Libra men al awai gan ascende," which he interprets to mean that the moon was ascending



together with the star Min al auwa, which is the 13th of the 28 Arabic 'moon-stations.' The reader should carefully consider all his arguments. I regret that here, and here only, I cannot follow him. The change seems too bold; yet I have nothing better to offer. I merely give my own impression of the matter, which may, after all, be not worth much. *Gan ascende*, in Early English, means no more than *did ascend*, and *alway gan ascende* would mean merely *ever did ascend*, or *kept on ascending*. I see nothing unusual in the phrase, though Mr Brae looks upon it as a great difficulty, and objects, in particular, to the word *alway*. Next, Chaucer does not say that the *moon* was ascending, but that the *moon's exaltation* was ascending, which is a very different thing. Again, Chaucer uses *exaltation* in its true astrological sense in other passages (see Notes XVI, XVIII, XIX); but, unfortunately, the Moon's exaltation was in Taurus, a long way off. I have no solution to offer but Tyrwhitt's, that Chaucer did, for once, make a slip (or his scribes have done it for him), and that it ought to be "*Saturnes exaltation*." Next, *In mene libra* would signify *in the middle of Libra*, just as we find "*mene mote*" (Astrol. ii. 44) for the Latin *medius motus*; but then, the ascending degree was certainly not *in the middle* of Libra, but *near the beginning* of it. This disposes of this reading, and throws us back upon *I mene Libra*, i. e. I refer to Libra; which can be supported by the use of the same phrase—*I mene Venus*—in l. 1358 of the *Knights Tale*. This would give—

"Therwith Saturnes exaltacioun,  
I mene Libra, alway gan ascende;"

and it would mean no more than that Libra kept on ascending. It had not long before appeared on the horizon. If it be asked, how came Chaucer (or the scribes) to put *mones* for *Saturnes*, I would reply, that a mistake of this kind is easy enough; for the whole of astrology is so technical that no one could be expected to remember it very well; and the *moon* might have been suggested by the fact, that every sign is divided into three equal parts (called *faces*); that the first *face* was then on the horizon; and that the first face of Libra is the face of *the Moon*. Only suppose a momentary confusion between *exaltation* and *face*, and it is done. But this is, perhaps,

very unsatisfactory. The reader should also consult Mr Brae's arguments. Perhaps the MSS. may some day help us out here.

XXIX. I add, by way of finishing these notes, the following miscellaneous remarks.

In the Assembly of Foules, l. 59, Chaucer mentions the *nine spheres*; see Fig. 10.

In the Flower and the Leaf (not Chaucer's) we are told that the Sun had just entered the Bull; and that the author rose long before sunrise, at daybreak, about three A.M. This would be about the 11th of April; roughly speaking, daybreak would be about three o'clock, and sunrise about five o'clock.

In the 1st (8th in Morris) stanza of Book ii. of Troilus and Creseide, Phebus is in the Bull on the 3rd of May. The sun would have just completed the 21st degree of Taurus. Cf. Note XXVII.

In the first stanza of the proem to Book iii. of Troilus, there is an address to Venus in "the thridde hevene." Now Venus is in the third heaven, if one begins at the innermost of the nine spheres; for we then have the order, Moon, Mercury, Venus, &c., and, in confirmation of this, we have a mention of the *seventh* sphere, which certainly means that of Saturn; Troil. v. 1823. But it is remarkable that Chaucer *also* adopted the other mode of reckoning, viz. from the seventh sphere of Saturn inwards, giving the order, Saturn, Jupiter, Mars, Sun, Venus, Mercury, Moon. This would place Venus in the *fifth* sphere; and so we find it in stanza ii. of L'Envoy de Chaucer a Scogan. It would also place Mars in the *third* sphere, as in the Complaint of Mars, st. v.<sup>1</sup> In the Boke of the Duchesse, l. 198, is the expression—"a quarter before day." I do not know whether this is a quarter of an hour before day, or a quarter of a day (say three hours) before day. I incline to the latter. Chaucer dreamt about the House of Fame (see l. 111) on the 10th night of December. The winter solstice was then very near at hand.

In the Chanones Yemannes Prologue (l. 272) we have the seven metals belonging to the planets, viz. Saturn, lead; Jupiter, tin; Mars,

<sup>1</sup> Not having perceived this *change* in Chaucer's reckoning, I proposed another solution of this expression, which Mr Brae corrected; see Trial Forewords to Chaucer's Minor Poems, by F. J. Furnivall, pp. 85, 121.

iron ; Sun, gold ; Venus, copper ; Mercury, quicksilver;<sup>1</sup> Moon, silver. Observe that, in the House of Fame, iii. 341, the “Saturnine” Josephus is on a pillar partly of *lead* ; cf. ll. 358, 359. The poets who wrote about warriors are on an *iron* pillar (l. 367), which is the metal of Mars, l. 356. Ovid, the poet of Venus, is on a *copper* pillar, l. 397 ; and so on.

The Prologue to the Legend of Good Women mentions May 1 ; l. 108.

In st. 1 of the Complaint of the Black Knight (which is certainly Lydgate's, not Chaucer's) we have the sun in the middle of the Bull in May. It must mean May 1, when the sun was in the 19th degree of Taurus, nearly.

### § 32. ASTROLOGICAL NOTES.

For a general sketch of Astrology, see the English Cyclopædia, s.v. Worthless as the science is, it is useful to have a few “facts” for handy reference. I therefore attempt a synopsis of the chief points of it, drawn from Johannis Hispalensis Isagoge in Astrologiam.

To save space, I give the information in a tabular form, wherein I denote the 12 Signs by A. T. G. C. L. V. Li. S. Sa. Cp. Aq. P. ; and the Seven Planets Saturn, Jupiter, Mars, Sun, Venus, Mercury, Moon, by St. J. Ms. Sn. V. My. Mo. What the table exactly means shall be explained presently.

Signs.	Man.	Ex.	Day.	Nt.	Com.	Face 1.	Face 2.	Face 3.
A.	Ms.	Sn. (19)	St.	J.	St.	Ms.	Sn.	V.
T.	V.	Mn. (3)	V.	Mn.	Ms.	My.	Mn.	St.
G.	My.	D. H.	St.	My.	J.	J.	Ms.	Sn.
C.	Mn.	J. (15)	V.	Ms.	Mn.	V.	My.	Mn.
L.	Sn.		Sn.	J.	St.	St.	J.	Ms.
V.	My.	My. (15)	V.	Mn.	Ms.	Sn.	V.	My.
Li.	V.	St. (19)	St.	My.	J.	Mn.	St.	J.
S.	Ms.		V.	Ms.	Mn.	Ms.	Sn.	V.
Sa.	J.	D. T.	Sn.	J.	St.	My.	Mn.	St.
Cp.	St.	Ms. (28)	V.	Mn.	Ms.	J.	Ms.	Sn.
Aq.	St.		St.	My.	J.	V.	My.	Mn.
P.	J.	V. (21)	V.	Ms.	Mn.	St.	J.	Ms.

<sup>1</sup> We still have the name *mercury* for quicksilver ; Copper and Venus are both connected with *Cyprus*. Nitrate of *silver* is *lunar* caustic. The sun shines like *gold*. Mars suggested *iron* armour. Saturn's slow motion suggested dull lead.

The first line is to be read thus.

Aries is the mansion (or house) of Mars ; the exaltation (or honour) of the Sun, in the 19th degree of the sign ; the lord of the Triplicity of Aries with its attendant signs is Saturn by day, Jupiter by night, and Saturn in common, both by day and night ; the first Face of Aries (degrees 1 to 10) is that of Mars ; the second Face (degrees 11 to 20) is that of the Sun ; the third Face (degrees 21 to 30) is that of Venus. And so on for the rest ; noting that Gemini is the Exaltation of the Dragon's Head (D. II.), and Sagittarius that of the Dragon's Tail (D. T.).

The meanings of the words are as follows. A *Mansion* or *House* appears to be that sign in which the planet is peculiarly at home for some reason or other.

The *Exaltation* or *Honour* is that degree of a sign in which the planet named has its greatest power ; but the degree was often neglected, and Aries was called the Exaltation of the Sun, simply.

The *Fall* (Lat. *occusus vel detrimentum*) of a planet is the sign opposite its mansion. Libra is opposite Aries ; therefore Libra is the Fall of Mars.

The *Dejection* or *Depression* (Lat. *dedecus*) of a planet is the sign opposite to that of its exaltation. Libra is opposite Aries ; therefore Libra is the Dejection of the Sun. And so on.

A *Triplicity* is a combination of three signs in the form of a triangle, each 120° apart. Thus Aries, Leo, and Sagittarius form the first triplicity ; Taurus, Virgo, Capricorn, the second ; Gemini, Libra, Aquarius, the third ; Cancer, Scorpio, Pisces, the fourth. Equal divisions of a sign (third-parts, namely) are called *Faces*. There were also unequal divisions called *Terms* ; see § 31, Notes XIX, XXVI.

The "mobill" or movable signs are Aries, Cancer, Libra, Capricorn.

The "fixe" or fixed signs are Taurus, Leo, Scorpio, Aquarius.

The "common" signs are the four others.

The signs Aries, Gemini, Leo, &c. (taking *every other* sign) are *diurnal* or *masculine*.

The rest, Taurus, Cancer, &c., are *nocturnal* or *feminine*.

The first six signs, Aries to Virgo, are *northern* or *sinister* signs.<sup>1</sup>

The last six, Libra to Pisces, are *southern* or *dexter* signs.

The signs Cancer to Sagittarius are *western*, *sovereign*, *right*, or *direct* signs. Cf. Astrol. ii. 28, and see Fig. 2.

The rest, Capricorn to Gemini, are *eastern*, *obedient*, *tortuous*, or *oblique* signs.

This is all that a reader is likely to want. For other points, see the authorities.

### § 33. DESCRIPTION OF THE PLATES.

Plate I. Fig. 1. The flat back of the Astrolabe ; see Pref. § 28.

Plate II. Fig. 2. The front of the Astrolabe, with raised border. In the wide depression in the middle, the plate called the "Rete" is dropped in, and is shown in its primary position. Other positions of it are sketched in Fig. 11 and Fig. 12.

Plate III. Fig. 3. The "Rewle," carrying two sights, which revolved at the back of the Astrolabe. Astrol. i. 13.

Fig. 4. The central "Pin," shown with the "Wedge" inserted through it. Astrol. i. 14 ; cf. Fig. 7.

Fig. 5. One of the Tables or discs, used by being dropped within the depression on the *front* of the Astrolabe ; i. 17. They were marked differently, according to the latitude of the place. The one here drawn is suitable for the latitude of Oxford, nearly.

Fig. 6. The "Label," which revolved at the *front* of the Astrolabe ; i. 22.

Plate IV. Fig. 7. Another form of the "Pin," showing the Wedge cut into the shape of a Horse (i. 14) ; from MS. Camb. II. 3. 3.

Fig. 8. Diagram, showing how to draw the three "principal circles ;" see footnote on p. 10.

Fig. 9. Another form of the "Rete," from MS. II. 3. 3 ; cf. Fig. 2. This figure shows the "Almury" very clearly ; Astrol. i. 23.

Plate V. Fig. 10. Diagram of the nine spheres ; from MS. Camb. II. 3. 3. Astrol. i. 17.

Fig. 11. Rough sketch of the position of the "Rete" in Astrol.

<sup>1</sup> So called because astrologers looked towards the east or ascendent.

ii. 3 (first part). Denticle opposite C, and first point of Aries opposite X; 9 A.M.

Fig. 12. Rough sketch of the position of the "Rete" in Astrol. ii. 3 (second part). Denticle near O; first point of Aries near H; 8h. 8m. P.M.

Fig. 13. Diagram of the Elevation of the Pole; Astrol. ii. 23. The arc AN is  $56^{\circ}$ ; A'N is  $48^{\circ}$ ; A'P. is  $4^{\circ}$ ; and PN is  $52^{\circ}$ . A, A' are two positions of the Pole-star.

Plate VI. Fig. 14. A "Table" or disc showing the twelve astrological "Houses;" Astrol. ii. 36 and 37.

Fig. 15. Diagram showing how to ascertain the meridional line from two shadows of an upright gnomon; Astrol. ii. 38.

Fig. 16. Diagram illustrating the use of the Umbra Recta; Astrol. ii. 41, 41*a*, and 41*b*.

Fig. 17. Diagram of the use of the Umbra Versa, at two observations; Astrol. ii. 42, 42*a*, and 42*b*.

Fig. 18. Use of the Umbra Recta, at two observations; Astrol. ii. 43, and 43*a*.

Plate VII. Fig. 19. Diagram showing the influence of the signs upon parts of the human body; Astrol. i. 21. From MS. Trin. R. 15. 18.





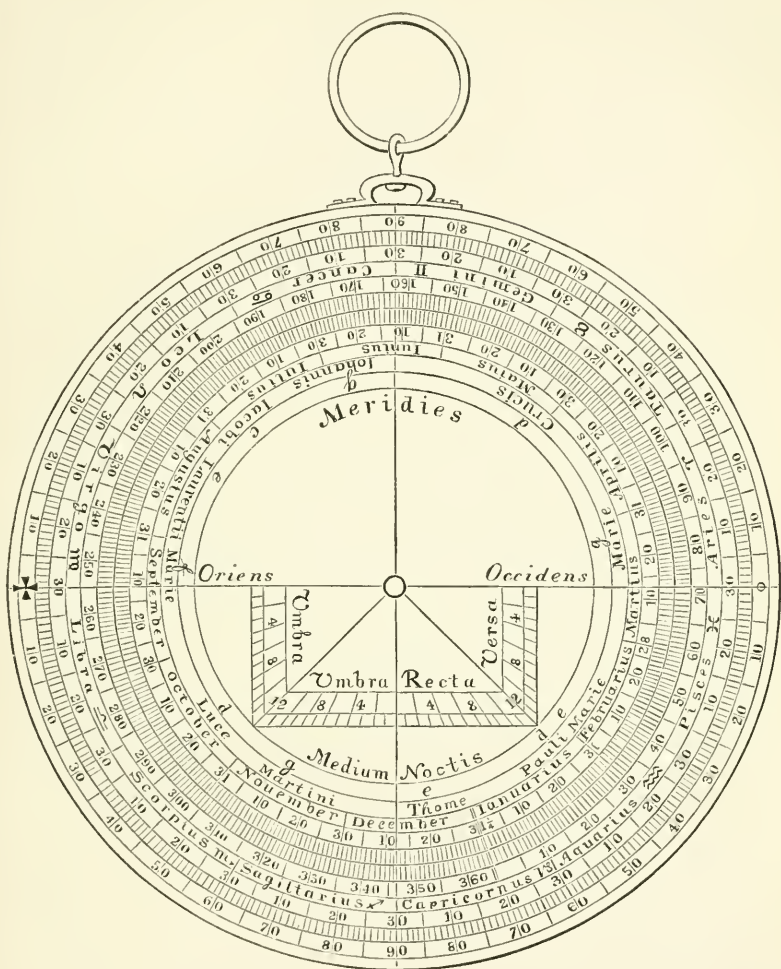


Fig. 1



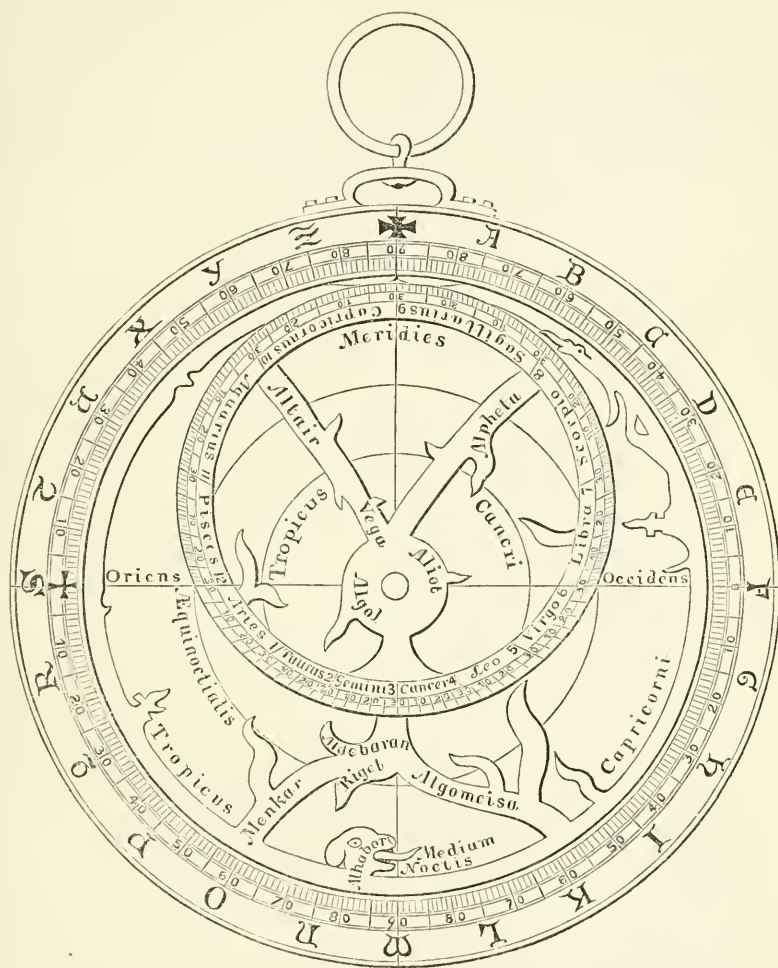
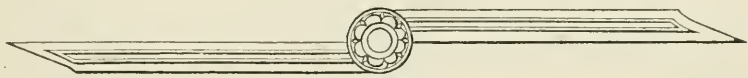
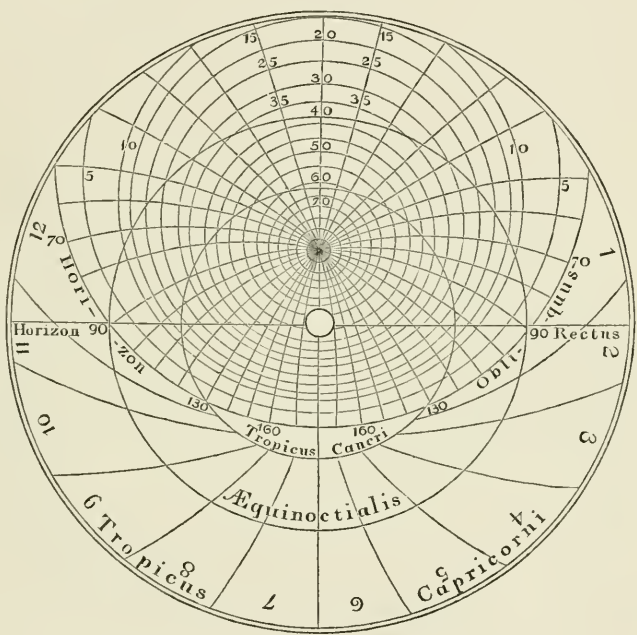
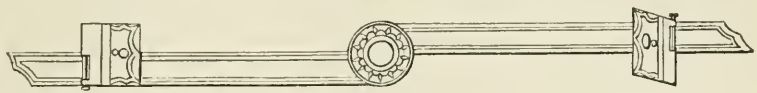
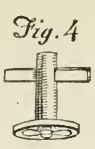


Fig. 2.









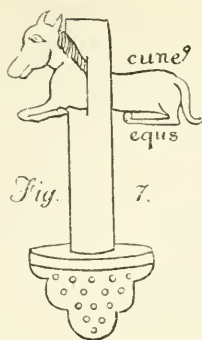


Fig. 7.

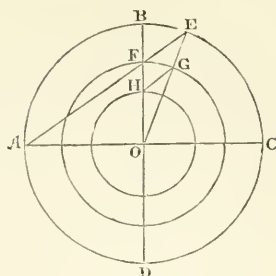


Fig. 8.

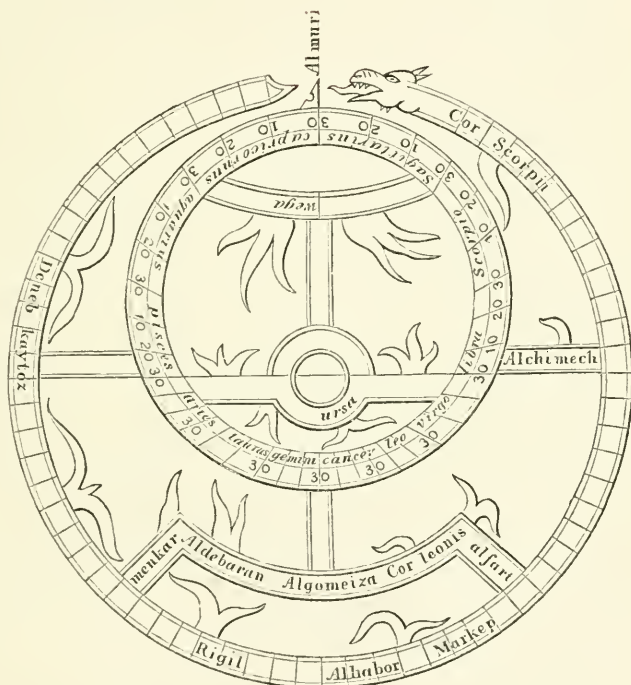


Fig 9.





Fig. 11.



Fig. 12.

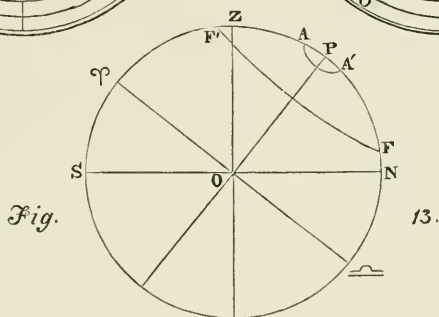


Fig.

13.

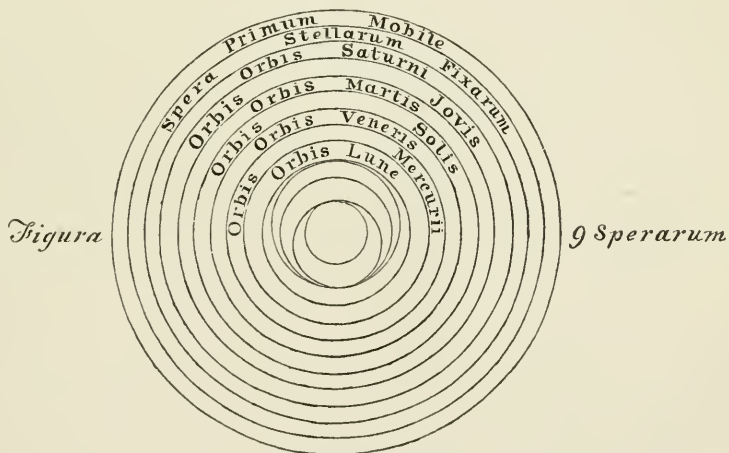


Fig. 10.









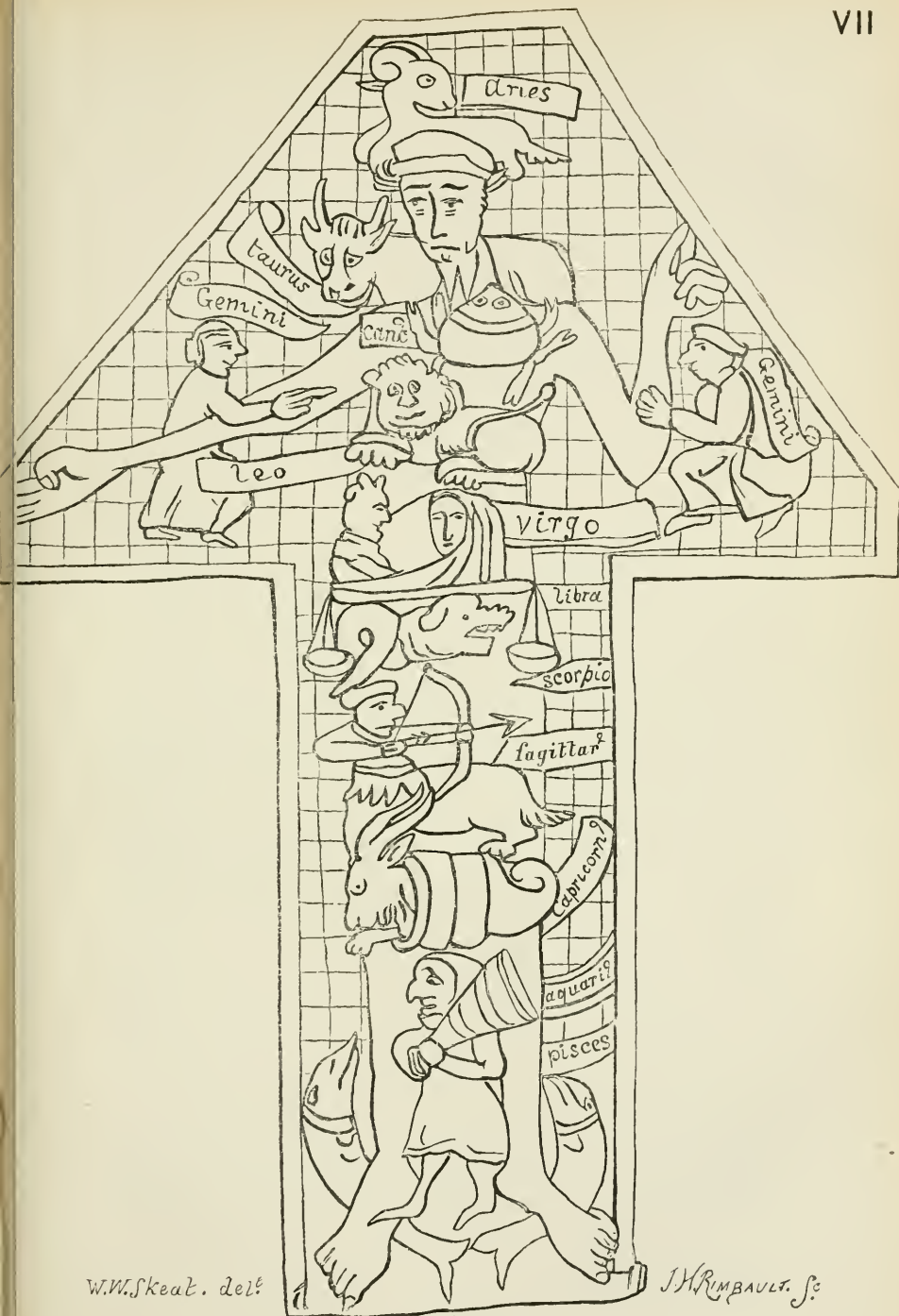


Fig. 19.



# Tractatus de Conclusionibus Astrolabii.

[Gred and mylk For childeren.]

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[Fol. 1.] **L** Itell Lowys my sone, I haue perceined well by *certeyne* evidences thine abilite to lerne sciencez touchinge nounbres & proporcions; ¶ & as wel *considere* I thy bisi preyere in special to lerne the tretis of the astrelabie. ¶ than, for as mechel as a filosofre seith, ¶ he wrappeth him in his frend, *pat condescend-* 4  
ith to the rihtful preiers of his frend / ther-for haue I geuen the a suffisaunt astralabie as for owre orizonte, *compowned* after the latitude of Oxenford / vp-on which, by mediacion of this litel tretis, I 8  
purpose to teche the a certain nombre of conclusions apertenying to the same instrument. ¶ I seye a *certein* of conclusiouns, for thre causes. ¶ the furste cause is this: ¶ truste wel *pat* alle the conclusiouns that han ben fownde, or elles possibli myhten be fownde 12  
in so noble an instrument as an astralabie, ben vn-knowe perfityly to any mortal man in this regioun, as I suppose. ¶ a-nother cause is this; *pat* sothly, in any tretis of the astrelabie *pat* I haue seyn, there ben some *conclusions* *pat* wole nat in alle thinges performen hir by- 16

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Little Lewis my son, I perceive that thou wouldst learn the Conclusions of the Astrolabe; wherefore I have given thee an instrument constructed for the latitude of Oxford, and purpose to teach thee *some* of these conclusions. I say *some*, for three reasons; (1) because some of them are unknown in this land; (2) because some are uncertain; or else

hestes ; ¶ & some of hem ben to harde to thy tendre age of .x. yer  
 to conseyue. ¶ this tretis, diuided in 5 parties, wole I shewe the  
 vnder ful lihte rewles & naked wordes in englissh ; for latyn ne  
 20 kanstow yit but smal, my lite sone. ¶ but natheles, suffise to the  
 thise trewe conclusiouns in englissh, as wel as suffisith to thise noble  
 clerkes grekes thise same conclusiouns in grek, ¶ & to arabiens in  
 arabik, ¶ & to Iewes in Ebrew, & to the latyn folk in latyn / whiche  
 24 latyn folk han hem furst owt of othre diuerse langages, & writen in  
 hir owne tonge, þat is to sein, in latyn. ¶ & god wot, þat in alle  
 this[e] langages, & in many mo, han thise conclusiouns ben suffi-  
 santly lerned & tawht / & yit by diuerse rewles, ryht as diuerse  
 28 pathes leden diuerse folk the rihte wey to Roome. ¶ Now wol I  
 prey mekly euery discret persone þat redith or herith this litel tretis,  
 to haue my rewde endytyng for excused, & my superfluite of wordes,  
 for two causes. ¶ the firste cause is, for that curio[u]s enditing &  
 32 hard sentence Is ful heuy atones for swich a child to lerne. ¶ &  
 the seconde cause is this, þat sothly me semeth betre to writen vn-to  
 a child twies a good sentence, than he for-get it ones. ¶ And lowis,  
 36 ȝif so be þat I shewe the in my lihte Englissh as trewe conclusiouns  
 touching this matere, & nawht only as trewe but as many & as subtil  
 [\*Fol. 1 b.] conclusiouns as ben shewed in latyn \*in ani commune tretis  
 of the astrelabie / kon me the more thank ; ¶ and preye god saue the  
 kyng, þat is lord of this langage, & alle that him feyth bereth & obeieith,  
 40 euerech in his degree, the more and the lasse. ¶ but considere wel, that  
 I ne vsurpe nat to haue fownde this werk of my labour or of myn  
 engin. ¶ I nam but a lewd compilatour of the labour of olde Astro-  
 log[i]ens, and haue hit translated in myn englissh only for thi doc-  
 44 trine ; ¶ & with this swerd shal I slen envie.

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(3) are too hard. This treatise, divided into five parts, I write for thee in English, just as Greeks, Arabians, Jews, and Romans were accustomed to write such things in their own tongue. I pray all to excuse my shortcomings; and thou, Lewis, shouldst thank me if I teach thee as much in English as most common treatises can do in Latin. I have done no more than compile from old writers on the subject, and I have translated it into English solely for thine instruction; and with this sword shall I slay envy.

¶ The firste *partie* of this tretis shal reherse the figures & the membres of thin Astrolabie, by-cause þat thow shalt han the grette knowyng of thin owne instrument.

¶ The second *partie* shal teche the werken the verrey practik of 48 the forseide conclusiouns, as ferforth & as narwe as may be shewyd in so smal an instrument portatif a-boute. ¶ For wel wot euery astrologien þat smalest fraccions ne wol nat ben shewid in so smal an instrument, as in subtil tables calkuled for a kawse. 52

¶ The .3. *partie* shal *contienen* diuerse tables of longitudes & latitudes of sterres fixe for the Astrolabie, ¶ & tables of declinacions of the [sonne], & tables of longitudes of Citeez & of townes ; ¶ & as wel for the gouernance of a klokke as for to fynde the altitude Meridian / 56 & many [a]-nother notable *conclusioun*, *after* the kalendres of the reuerent clerk[es], frere I. Somer & frere N. Lenne.

¶ The .4. *partie* shal ben a theorik to declare the Moeuynge of the celestial bodies with [þe] causes. ¶ the whiche 4 *partie* in special 60 shal shewen a table of the verrey Moeuynge of the Mone from howre to howre, euery day \* & in euery signe, after thin Almenak / [\* Fol. 2.] vp-on wych table ther folwith a canon, suffisant to teche as wel the *maner* of the wyrkyng of þat same *conclusioun* / as to knowe in 64 owre orizonte with wych degree of the zodiac that the Mone arisith in any latitude / & the arising of any planete *after* his latitude fro the Ecliptik lyne.

¶ The .5. *partie* shal ben an introductorie *after* the statutz of owre 68 doctours, in which thow maist lerne a gret part of the general rewles of theorik in Astrologie. ¶ in which .5. *partie* shaltow fynde tables of equacions of howses *after* þe latitude of Oxenford ; ¶ & tables of dignetes of planetes / & other noteful thingez / yif god wol vouche 72 sauf & his modur the mayde, mo than I be-hete, &c.

The *first* part gives a description of the instrument itself.

The *second* teaches the practical working of it.

The *third* shall contain tables of latitudes and longitudes of fixed stars, declinations of the sun, and the longitudes of certain towns.

The *fourth* shall shew the motions of the heavenly bodies, and especially of the moon.

The *fifth* shall teach a great part of the general rules of astronomical theory.



## Her by-gynneth the description of the Astrelabie.

1. ¶ Thyn Astrelabie hath a ring to putten on the t[h]owmbe of thy ryht hand in takyng the heyhte of thynges. ¶ & tak kep, for from hennes-forthward, I wol elepe the heyhte of any thing þat is  
4 taken by thy rewle, the altitude, *with-owte* mo wordes.

2. ¶ This ring rennyth in A Maner turet, fast to the Moder of thyn Astrelabie, in so Rowm a space þat hit desturbith nat the instrument to hangen aftur his rihte centre.

[Fol. 2 v.] 3. ¶ The moder of thin Astrelabie is [þe] thikkeste plate, perced with a large hole, þat resseyuyth in hir wombe the thynne plates compowned for diuerse clymatz, & thi Riet shapen in manere  
4 of a net or of a webbe of a loppe; & for the more declaracioun, lo here the figure.

4. ¶ This Moder is deuyded on the bakhalf with a lyne, þat cometh dessendinge fro the ryng down to the nethereste bordure. ¶ the whiche lyne, fro þe for-seide Ryng vn-to the centre of the large  
4 hole amydde, is cleped the sowth lyne, or elles the lyne Meridional. ¶ & the remenant of this lyne downe to the bordure is cleped the north lyne, or elles the lyne of Midnyht. ¶ & for the more declaracioun, lo here the figure.

Here begins the *first* part; i. e. the description of the Astrolabe itself.

1. *The Ring.* See figs. 1 and 2. The Latin name is *Armilla suspensoria*; the Arabic name is spelt *alhahuacia* in MS. Camb. Univ. II. 3. 3, but Stöfler says it is *Alanthica*, *Alphantia*, or *Abalhautica*. For the meaning of "rewle," see § 13.

2. *The Turet.* This answereth nearly to what we call an *eye* or a *swivel*. The metal plate, or loop, to which it is fastened, or in which it turns, is called in Latin *Ansa* or *Armilla Reflexa*, in Arabic *Alhabor*.

3. *The Moder.* In Latin, *Mater* or *Rotula*. This forms the body of the instrument, the back of which is shewn in fig. 1, the front in fig. 2. The "large hole" is the wide depression sunk in the front of it, into which the various discs are dropped. In the figure, the "Rete" is shewn fitted into it.

4. See fig. 1; Chaucer describes the "bak-half" of the instrument first. The centre of the "large hole amydde" is the centre of the instrument, where a smaller hole is pierced completely through. The *Sowth lyne* (marked *Meridies* in figs. 1 and 2) is also called *Linca Meridiei*; the *North lyne* is also named *Linca Mediæ Noctis*.

[Fol. 3.] 5. ¶ Ouer-thwart this for-seide longe lyne, ther crosseth hym a-nother lyne of the same lengthe from est to west. Of the whiche lyne, from a lityl croys + in the bordure vn-to the centre of the large hole, is cleped the Est lyne, or elles the lyne Orientale; ¶ & the 4 remenant of this lyne fro the forseide + vn-to the bordure, is cleped the west lyne, or the lyne occidentale. ¶ now hastow her the 4 quarters of thin astrelabie, deuyded after the 4 principals plages or quarters of the firmament. ¶ & for the more declaracioun, lo here 8 thi figure.

6. ¶ The est side of thin Astrelabie is cleped the riht side, ¶ & the west side is cleped the left side. ¶ for-get nat this, lite[l] lowys. ¶ put the ring of thin Astralabie vp-on the thowmbe of thy ryht hand, and thanne wole his right side be toward thy left side, & his 4 left side wol be toward thy right side; tak this rewle general, as wel on the bak as on the wombe-side. ¶ vp-on the ende of this est lyne, as I first seide, is marked a litel +, wher as euere-mo generally is considered the entring of the first degree in wich the sonne arisith. 8 ¶ & for the more declaracioun, lo here þe figure.

[Fol. 3 b.] 7. ¶ Fro this litel + vp to the ende of the lyne Meridional, vndur the ryng, ¶ shaltow fynden the bordure deuyded with 90 degrees; & by that same proporcioun is euery quarter of thin Astrolabie deuyded. ¶ ouer the wiche degrees ther ben nowmbres of 4 augrym, þat deuyden thilke same degrees fro 5 to 5, as shewith by longe strykes by-twene. ¶ of wyche longe strykes the space by-twene contienith a Mile-wey. ¶ & euery degree of the bordure contieneth 4 Minutes, that [is] to seyn, minutes of an howre. ¶ & 8 for more declaracioun, lo here the figure

5. The *Est lyne* is marked with the word *Oriens*; the *West lyne*, with *Occidens*.

6. The rule is the same as in heraldry, the *right* or *dexter* side being towards the spectator's left.

7. As the 360 degrees answer to 24 hours of time, 15° answer to an hour, and 5° to twenty minutes, or a *Mile-way*, as it is the average time for walking a mile. So also 1° answers to 4 minutes of time. See the two outermost circles in fig. 1, and the divisions of the "border" in fig. 2.

[Fol. 4] 8. ¶ Vnder the *compas* of thilke degres ben writen the names of the 12 signes, as Aries, taurus, gemini, Cancer, leo, virgo, libra, Scorpio, Sagittarius, Capricornus, Aquarius, Pisees; & the 4 nombres of the degres of tho signes ben writen in Augrim aboue, & with longe deuysions, fro 5 to 5; deuyled fro tyme þat the signe entreth vn-to the laste ende. ¶ but vnderstond wel, þat these degrees of signes ben euerich of hem considered of 60 Mynutes, & euery 8 Minute of 60 secondes, & so forth in-to smale fraccions infinit, as seith Alkabucius. ¶ & ther-for, know wel, þat a degree of the bordure contienith 4 Minutis, and a degree of a signe contienith 60 Mynutis, & haue this in Mynde. ¶ & for the more declaracioun, lo here thi 12 figure.

9. ¶ Next this folwyth the cerele of the dayes, þat ben figured in maner of degres, þat contienen in nowmbre 365; dyuyded also with longe strikes fro 5 to 5, & the nombre[s] in Augrym writen 4 vnder þat cerele. ¶ and for more declaracioun, loo heere thy figure.

[Fol. 4 b.] 10. ¶ Next the cerele of the dayes folweth the Cerele of the names of the Monthes; þat is to seyen, Ianuare, Februaire, Marcus, Aprile, Mayus, Iuyn, Iulius, Augustus, Septembre, October, Novembre, Decembre. ¶ the names of these Monthes were cleped in Arabyens, *somme* for hir *propetes*, & some by statutz of lordes, some by other lordes of Rome. ¶ ek of these Monthes, as liked to Iulius cesar & to cesar Augustus, some were *compowned* of diuerse 8 nombres of dayes, as Iuyl and August. ¶ thanne hath Ianuare xxxi daies, Februaire 28, March 31, Aprile 30, May 31, Iunius 30, Iulius 31, Augustus 31, September 30, Octobre 31, Nouembre 30, Decembre 31. ¶ natheles, al-thow that Iulius cesar tok 2 daies owt of 12 Feuerer & put hem in his monith of Iuylle, & Augustus cesar cleped

8. See the third and fourth circles (reckoning inwards) in fig. 1.

9. See the fifth and sixth circles in fig. 1.

10. See the seventh, eighth, and ninth circles in fig. 1. The names of the months are all Roman. The month formerly called *Quintilis* was first called *Julius* in B.C. 44; that called *Sextilis* was named *Augustus* in B.C. 27. It is a mistake to say that Julius and Augustus made the alterations spoken of in the text; what Julius Cæsar really did, was to add 2 days to the months of January, August (Sextilis), and December,

the Monyth of August After his name & ordeyned it of 31 daies, yit truste wel, þat the sonne dwelleth ther-for neuere the more ne lesse in on signe than in another.

11. ¶ Than folwen the names of the halidayes in the kalender & next hem the lettres of the A. b. c. on wich they fallen. ¶ & for the more declaracioun, loo here thi figure.

[Fol. 5] 12. ¶ Next the forseide cerele of the A. b. c., vnder the cros-lyne, is Marked the skale, in Maner of 2 Squyres or elles in Manere of laddres, þat seruith by hise 12 poyntes & hise deuisiouns of ful many a subtil conclusioun. Of this forseide skale, fro the 4 cros-lyne vn-to the verre angle, is elepid *umbra [versa]*, & the nether partie is cleped the *umbra [recta]*, or elles *umbra extensa*.] ¶ & for the more declaracioun, loo here the figure.

13. ¶ Thanne hastow a brod Rewle, þat hath on either ende a Square plate perced with a certain holes, some more & some lesse, to resseyuen the stremes of the sonne by day, and ek by mediacioun of

and 1 day to April, June, September, and November. February never had more than 28 days till he introduced bissextile years.

11. See the two inmost circles in fig. 1. The names given are adopted from a comparison of the figures in the Cambridge University and Trinity MSS., neither of which are quite correct. The letters of the "A. b. c." are what we now call the Sunday letters. The festivals marked are those of St Paul (Jan. 25), The Purification (Feb. 2), The Annunciation (Mar. 25), The Invention of the Holy Cross (May 3), St John the Baptist (June 24), St James (July 25), St Lawrence (Aug. 10), The Nativity of the Blessed Virgin (Sept. 8), St Luke (Oct. 18), St Martin of Tours (Nov. 11), and St Thomas (Dec. 21).

12. The "skale" is in Latin *Quadrans*, or *Scala Altimetra*. It is certain that Chaucer has here made a slip, which cannot be fairly laid to the charge of the scribes, as the MSS. agree in transposing *versa* and *recta*. The side-parts of the scale are called *Umbra versa*, the lower part *Umbra recta* or *extensa*. This will appear more clearly at the end of Part II.

13. See fig. 3, Plate III. Each plate turns on a hinge, just like the "sights" of a gun. One is drawn flat down, the other partly elevated. Each plate (*tabella vel pinnula*) has two holes, the smaller one being the lower. This *Rewle* is named in Arabic *Alhūdā* or *Allūdāthā*; in Latin *Verticulum*, from its turning easily on the centre; in Greek *Dioptra*, as carrying the sights. The straight edge, passing through the centre, is called the *Linea Fiduciæ*. It is pierced by a hole in the centre, of the same size as that in the *Mother*.

4 thyn Eye, to knowe the altitude of sterres by nyhte. ¶ & for the more declaracioun, lo here thi figure.

14. ¶ Thanne is ther a large Pyn in maner of an Extre, þat goth thorow the hole / that halt the tables of the clymates & the Riet in the wombe of the Moder / thorw wich pyn ther goth a litel wegge 4 which þat is cleped the hors, þat streynet[h] alle thise parties to hepe ; this forseide grete Pyn in maner of an extre is ymagyn[e]d to be the Pol Artyk in thin Astralabie. ¶ & for the more declaracioun, lo here the figure.

[Fol. 5 b.] 15. ¶ The wombe-side of thyne Astrelabie is also deuyded wit[h] a longe croys in 4 quarters from est to West, fro sowth to north, fro rilt side to left side, as is the bak-side. & for the more 4 declaracioun, lo here thi figure.

16. ¶ The bordure of which wombe-side is deuyded fro the poynt of the est lyne vn-to the poynt of the south lyne vnder the ring, in 90 degrees ; & by þat same proporcioun is euery quarter deuyded as ys the bak-side, þat amonteth 360 degrees. ¶ & vnderstond wel, þat degrees of this Bordure ben answering & consentrik to the degrees of the Equynoxial, þat ys deuyded in the same nombre as euery othere cercle is in the heie heuene. ¶ This same bordure is 8 deuyded also with 23 lettres capitals & a smal croys + aboue the south lyne, þat shewith the 24 howres equals of the klokke / & , as I haue said, 5 of thise degrees maken a Milewey, & 3 Milewey maken an howre. ¶ & euery degree of this bordure contineth 4 Mynutes, &

14. See fig. 4, Plate III. The *Pin* is also called *Axis* or *Clavus*, in Arabic *Alchitot* ; it occupies the position of the Arctic or North Pole, passing through the centre of the plates that are required to turn round it. The *Wedge* is called *cuneus*, or *equus restringens*, in Arabic *Alpheraz* or the horse, because it was sometimes cut into the shape of a horse, as shewn in fig. 7, Plate IV, which is copied from MS. Univ. Camb. II. 3. 3.

15. See fig. 2, Plate II. In the figure, the cross-lines are partly hidden by the *Rete*, which is separate and removable, and revolves within the border.

16. The *Border* was also called *Margilabrum*, *Margolabrum*, or *Limbus*. It is marked (as explained) with hour-letters and degrees. Each degree contains 4 minutes of time, and each of these minutes contains 60 seconds of time.



euery Minut 60 secoundes ; now haue [y] told the twye. ¶ & for the 12 more declaracioun, lo here the figure.

[Fol. 6.] 17. ¶ The plate vnder thi Riet is descriued with 3 [principal] cerclis ; of wiche the leste is cleped the cerele of cancer / by-cause þat the heued of cancer turnyth euermor *consentrik* vp-on the same cerele. ¶ in this heued of cancer is the grettest declinacioun 4 northward of the sonne. ¶ & ther-for is he cleped the Solsticioun of somer ; ¶ wiche declinacioun, aftur ptholome, is 23 degrees & 50 Minutis, as wel in cancer as in Capricorne. this signe of cancre is cleped the tropik of Somer, of *tropos*, þat is to seyn Agaynward, for 8 thanne by-gynneth the sonne to passe fro vs-ward ; ¶ & for the more declaracioun, lo here the figure.

[Fol. 6 b.] ¶ The Middel cerele in wydnesse, of thise 3, is cleped the cerele equinoxial / vp-on whiche turneth euermo the hedes of 12 aries & libra. ¶ & vnderstond wel, þat euermo this cerele equinoxial turnyth Iustly fro verrey est to verrey west ; ¶ as I haue shewed the in the sper solide. ¶ this same cerele is cleped also the weyere, *equator*, of the day / for whan the sonne is in the heuedes of 16 aries & libra, than ben the daies & the nyht[es] illike of lenththe in al the world. ¶ & ther-fore ben thise two signes called the equinoxiis. ¶ & alle þat Moenyth with-in the heuedes of thise aries & libra, his Moenyng is cleped north-ward / & alle that Moenyth with- 20 oute thise heuedes, his Moenyng is clepid sowth-ward as fro the equinoxial. ¶ tak kep of thise latitudes north and sowth, & for-get it nat. ¶ by this cerele equinoxial ben *considered* the 24 howres of the klokke ; for euermo the arisyng of 15 degrees of the equinoxial 24 maketh an howre equal of the klokke. ¶ this equinoxial is cleped

17. We may place under the *Rete* any plates we please. If only the *Mother* be under it, without any plate, we may suppose the *Mother* marked as in fig. 2. The plate or disc (*tympanum*) which was usually dropped in under the *Rete* is that shewn in fig. 5, Plate III, and which Chaucer now describes. Any number of these, marked differently for different latitudes, could be provided for the Astrolabe. The greatest declination of the sun measures the obliquity of the ecliptic, the true value of which is slightly variable, but was about  $23^{\circ} 31'$  in Chaucer's time, and about  $23^{\circ} 40'$  in the time of Ptolemy, who certainly assigns to it too large a value. The value of it must be known before the three

the gyrdelle of the firste Moeuyng, or elles of the *angulus primi motus vel primi mobilis*. ¶ And *nota*, þat firste Moeuyng is cleped "Moeu-  
28 yng" of the firste Moeuable of the 8 spere, whiche Moeuyng is fro  
est to west, ¶ & eft agayn in-to est / also it is clepid "girdel" of  
the first Moeuyng, for it departeth the furste Moeuable, þat is to  
seyn, the spere, in 2 ilike parties, eueue distantz fro the poles of this  
32 world.

¶ The wydeste of thise 3 principal cerkles is cleped the cercele of  
capricorne, by-cause þat the heued of capricorne turnyth euermo *con-*  
*sentryk* vp-on the same cercele / in the heued of this for-seide capri-  
36 corne is the grettest declinacioun sowthward of the sonne, & ther-for  
is it cleped the solsticioun of wyntur. this signe of capricorne is also  
cleped the tropik of wyntur, for thanne bygynnyth the sonne to come  
agayn to vs-ward. ¶ & for the more declaracioun, lo here thi  
40 figure.

[Fol. 7] 18. ¶ Vp-on this forseide plate ben compassed certein  
cerelis þat hihten Almicanteras / of which som of hem semen perfit  
cercles, & somme semen inperfit. the centre þat standith a-Middes the  
4 narwest cercele is cleped the senyth; ¶ & the netherest cercele, or  
the furste cercele, is clepid the orisonte, ¶ þat is to seyn, the cercele

circles can be drawn. The method of finding their relative magnitudes is very simple. Let ABCD (fig. 8, Pl. IV) be the tropic of Capricorn, BO the South line, OC the West line. Make the angle EOB equal to the obliquity (say  $23\frac{1}{2}^\circ$ ), and join EA, meeting BO in F. Then OF is the radius of the Equatorial circle, and if GH be drawn parallel to EF, OH is the radius of the Tropic of Cancer. In the phrase *angulus primi motus*, *angulus* must be taken to mean angular motion. The "first moving" (*primus motus*) has its name of "moving" (*motus*) from its denoting the motion of the *primum mobile* or "first moveable." This *primum mobile* (by some placed in the ninth sphere) is here identified with the eighth sphere, or *sphara stellarum fixarum*. See the fig. in MS. Camb. Univ. II. 3. 3 (copied in fig. 10, Plate V). Some authors make 12 heavens, viz. those of the 7 planets, the *firmamentum* (*stellarum fixarum*) the *nonum cælum*, *decimum cælum*, *primum mobile*, and *cælum empyreum*.

18. See fig. 5, Pl. III. This is made upon the alt-azimuth system, and the plates are marked according to the latitude. The circles, called in Latin *circuli progressionum*, in Arabic *Almicantharath*, are circles of altitude, the largest imperfect one representing the horizon (*horizon obliquus*), and the central dot being the zenith, or pole of the horizon. In



*pat* deuydeth the two Emysperies / *pat* is, the partie of the heuene a-boue the Erthe & the *partie* be-nethe. ¶ thise almy-kanteras ben compowned by 2 & 2, al be it so *pat* on diuers Astrelabies some 8 almy-kanteras ben deuyded by on / & some by two, & *somme* by .3. *after* the quantite of the Astrelabie. ¶ this forseide cenyth is ymagened to ben the *verrey* point ouer the crowne of thyn heued / & also this senyth is the *verrey* pool of the orisonte in euery regioun. 12 ¶ & for the more declaracioun, lo here thi figure.

19. ¶ From this senyth, as it semeth, ther come a *maner* krokele strikes like to the clawes of a loppe, or elles like to the werk of a womanes calle, in keruyng ouerthwart the Almykanteras. ¶ & thise same strikes or diuisiouns ben cleped Azymuthz. ¶ & 4 they deuyden the Orisonte of thin astrelabie in 24 deuisiouns. ¶ & thise Azimutz seruen to knowe the costes of the firmament ¶ & to othre *conclusiouns*, as for to knowe the cenyth of the sonne & of euery sterre. ¶ & for [the] more declaracioun, lo here thi figure. 8

[Fol. 7 v.] 20. ¶ Next thise azymutz, vnder the cercle of Cancer, ben ther 12 deuysiouns embelif, moche like to the shap of the azimutes, *pat* shewen the spaces of the howres of planetes / & for mor declaracioun, lo here thi figure. 4

21. ¶ The riet of thin Astrelabie *with* thy zodiak, shapen in *maner* of a net or of a lop-webbe *after* the olde descripcioun, which thow maist tornen vp and down as thi-self likyth, *contienith* certain nombre of sterres fixes, *with* hir longitudes & latitudes determynat ; 4

my figure, they are "compounded by" 5 and 5, but Chaucer's shewed every second degree, i. e. it possessed 45 such circles. For the method of drawing them, see Stöffler, leaf 5, back.

19. Some Astrolabes shew 36 of these azimuthal circles, as in my figure. See Stöffler, leaf 13, where will be found also the rules for drawing them.

20. If accurately drawn, these *embelife* or oblique lines should diuide the portions of the three circles below the *horizon obliquus* into twelve equal parts. Thus each arc is determined by having to pass through three known points. They are called *arcus horarum inequalium*, as they shew the "howres inequales."

21. In fig. 2, Pl. II, the *Rete* is shewn as it appears when dropped into the depression in the front of the instrument. The shape of it varied much, and another drawing of one (copied from Camb. Univ. MS.

¶ 3if so be þat the makere haue nat erred. the names of the sterres  
 ben writen in the Margyn of the riet ther as they sitte ; ¶ Of whiche  
 sterres the smale poynt is cleped the Centre / And vnderstond also  
 8 þat alle sterres sittinge wyth-in the zodiak of thin astrolabie ben  
 cleped sterres of the north, ¶ For thei Arisen by northe the est lyne.  
 ¶ & alle the remenant fixed, owt of the zodiak, ben cleped sterres of  
 the sowth ; ¶ but y sey nat þat they arisen alle by southe the est  
 12 lyne ; witnesse on aldeberan & Algomeysa. ¶ generally vnderstond  
 this rewle, that thilke sterres þat ben cleped sterres of the north  
 arisen rather than the degree of hire longitude, & alle [the] sterres of  
 the sowth arisen aftur the degree of hire longitude ; this is to seyn,  
 16 sterres fixed in thin Astralabie. the mesure of this longitude of  
 sterres is taken in the lyne Ecliptik of heuene, vnder which lyne,  
 whan that the sonne & the Mone ben lyne-riht or elles in the  
 superficie of this lyne / than is the Eclips of the sonne or of the  
 20 [\* Fol. 8] Mone ; as y shal declare, & ek the cause why. but \*sothly the  
 Ecliptik lyne of thy zodiak is the owttereste bordure of thy zodiak,  
 ther the degrees ben marked.

¶ Thy zodiak of thin Astralabie is shapen as a *compas wich* þat  
 24 contienith a large brede, as aftur the quantite of thin astralabie / in  
 ensample þat the zodiak in heuene is ymagened to ben a superficie  
 contienyng a latitude of 12 degrees, ¶ wher[as] al the remenant of  
 cerkles in the heuene ben ymaged verrey lynes *with-owte* eny  
 28 latitude. ¶ Amiddes this celestial zodiak ys ymaged a lyne, which  
 þat is cleped the Ecliptik lyne / vndur which lyne is euermo the  
 wey of the sonne. ¶ Thus ben ther 6 degrees of the zodiak on þat  
 on side of the lyne, and 6 degrees on that other. ¶ This zodiak is

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Ii. 3. 3, fol. 66 b.) is given in fig. 9, Pl. IV. The positions of the stars are marked by the extreme points of the metal tongues. Fig. 2 is taken from the figures in the Cambridge MSS., but the positions of the stars have been corrected by the list of latitudes and longitudes given by Stöfler, whom I have followed, not because he is *correct*, but because he probably represents their positions as they were supposed to be in Chaucer's time very nearly indeed. There was not room to inscribe the names of all the stars on the *Rete*, and to have written them *on the plate below* would have conveyed a false impression. A list of the stars marked in fig. 2 is given at the end of the volume. The Ecliptic is the circle

deuided in 12 principal deuisiouns, þat departen the 12 signes. ¶ &, 32  
 for the streitnes of thin astrelabie, than is euery smal deuysioun in a  
 signe departid by two degrees & two; I mene degrees contenyng 60  
 Minutes. ¶ & this forseide heuenissh zodiak is cleped the cercle of  
 the signes / or the cercle of the bestes / for *zodia* in langage of grek 36  
 sownyth 'bestes' in latyn tonge. ¶ & in the zodiak ben the 12  
 signes þat han names of bestes; or elles for whan the sonne entrith  
 in any of the signes, he taketh the proprete of swich bestes; or  
 elles for þat the sterres that ben there fixed ben disposed in signes of 40  
 bestes, ¶ or shape like bestes; ¶ or elles whan the planetes ben vnder  
 thilke signes, þei causen vs by hir influence operaciouns & effectes lik  
 to the operaciouns of bestes. ¶ & vnderstonde Also, þat whan an  
 hot planete comyth in-to an hot signe, than encresseth his hete; & 44  
 3if a planete be cold, thanne amenuseth his coldnesse, by-cause of the  
 hote signe. ¶ & by this conclusioun maistow take ensample in alle  
 the signes, be they moist or drie, or moeble or fix; rekenyng the  
 qualite of the planete as I furst seide. ¶ & euerych of thise 12 Signes 48  
 hath respecte to a certein parcelle of the body of a man and hath it  
 in gouernance; as aries hath thin heued, & taurus thy nekke & thy  
 throte / gemyni thyn armholes & thin armes, ¶ & so forth; as  
 shal be shewed more pleyne in the 5 partie of this tretis. this zodiak, 52  
 which þat is part of the 8 spere, ouer-kerueth the equinoxial; and  
 he ouer-kerueth hym again in euene parties / & þat on half declinith  
 sowthward, & þat other northward, as pleynli declareth the tretis of  
 the spere. ¶ & for mor declaracioun, lo here thi figure. 56

[Fol. 8 b.] 22. ¶ Thanne hastow a label, þat is schapen lik a rewle,

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which crosses the Equinoctial at its East and West points. In Chaucer's description of the zodiac, carefully note the distinction between the Zodiac of the Astrolabe and the Zodiac of Heaven. The former is only *six* degrees broad, and shews only the northern half of the heavenly zodiac, the breadth of which is *imagined* to be 12 degrees. Chaucer's zodiac only shewed *every other* degree in the divisions round its border. This border is divided by help of a table of right ascensions of the various degrees of the ecliptic, which is by no means easily done. See *Additional Note* on this section; which explains Fig. 19, Plate VII. I may add that the *Rete* is also called *Aranca* or *Volcellum*; in Arabic, *Alhancabuth*.

22. *The Label.* See fig. 6, Pl. III. The *label* is more usually used

saue þat it is streit & hath no plates on either ende *with* holes ;  
 ¶ but *with* the smale point of the forseide label, shaltow kalkule  
 4 thyne equaciouns in the bordure of thin Astrolabie as bi thin almury.  
 ¶ & for the more declaracioun, lo here thy figure.

23. ¶ Thin almury is cleped the denticle of capricorne or elles  
 the kalkuler. ¶ this same Almury sit fix in the hed of capri-  
 corne, & it seruyth of many a necessarie conclusioun in equaciouns  
 4 of thynges, as shal be shewed ; ¶ & for the more declaracioun, lo here  
 thi figure.

Her endith the description of the Astrolabie.

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[Fol. 9] Her bygynnen the conclusions of the Astrolabie.

1. To fynde the degree in which the sonne is day by day,  
 after hir cours a-bowte.

[Hic incipiunt conclusiones astrolabii ; & prima est ad inuenien-  
 dum gradus solis in quibus singulis diebus secundum cursum  
 sol est existens.]

¶ Rekene and knowe which is the day of thi monthe ¶ & ley  
 thi reule vp that same day, & thanne wol the verray point of thy  
 rewle sitten in the bordure, vp-on the degree of thy sonne. ¶ En-  
 4 sample as thus ; the yer of oure lord 1391, the 12 day of March at  
 Midday, I wolde knowe the degree of the sonne. ¶ I sowhte in the  
 bakhalf of myn astrolabie, and fond the sercle of the daies, ¶ the  
 which I knowe by the names of the Monthes writen vndur the same  
 8 Cercele. ¶ Tho leide I my rewle ouer this forseide day, & fond the

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on the *front* of the instrument, where the *Rete* and other plates revolve.  
 The *rule* is used on the *back*, for taking altitudes by help of the scale.

23. The *Almury* ; called also *denticulus*, *ostensor*, or "calculus." In  
 fig. 2, it may be seen that the edge of the *Rete* is cut away near the head  
 of Capricorn, leaving only a small pointed projecting tongue, which is  
 the almury or denticle, or (as we should now say) pointer. As the *Rete*  
 revolves, it points to the different degrees of the border. See fig. 9.

Part II, § 1. [The Latin headings to the propositions are taken from  
 the MS. in St John's College, Cambridge.] See fig. 1. Any straight

point of my rewle in the bordure vp-on the firste degree of aries, A litel *wit*h-in the degree / & thus knowe I this *conclusioun*. ¶ A-nother day, I wolde knowe the degree of my sonne, & this was at Midday in the 13. day of decembre; I fond the day of the month in maner 12 as I seide / tho leide I my rewle vp-on this forseide 13. day, & found the point of my rewle in the bordure vp-on the first degree of capricorne / a lite *wit*h-in the degree ¶ & than hadly of this *conclusioun* the ful experience / & for the more declaracioun, lo her thi 16 figure.

[Fol. 9 b.] 2. To knowe the altitude of the sonne, or of othre celestial bodies.

[De altitudine solis & aliorum corporum supra celestium.]

¶ Put the ring of thin Astrelabie vp-on thi riht thowmbe & turne thi lift side a-gayn the light of the sonne/ And rem[e]ne thi rewle vp and down til þat the stremes of the sonne shyne thorgh bothe holes of thi rewle. ¶ loke thanne how Many degrees thi 4 rewle is a-reised fro the litel crois vp-on thin est line, & tak ther the altitude of thi sonne. ¶ & in this same wyse maistow knowe by nyhte the altitude of the Mone, or of brihte sterres / this chapitre is so general euer in on, þat ther nedith no more declaracion; but 8 for-get it nat. ¶ & for the more declaracioun, lo here the figure.

[Fol. 10] 3. To knowe euery tyme of the day by liht of the sonne, & euery tyme of the nyht by the sterres fixe, & eke to knowe by nyht or by day the degree of any signe þat assendith on the est Orisonte, which þat is cleped comunly the assendent or elles oruscupum.

edge laid across from the centre will shew this at once. Chaucer, reckoning by the old style, differs from us by about 8 days. The first degree of Aries, which in histime answered to the 12th of March, now vibrates between the 20th and 21st of that month. This difference of eight days must be carefully borne in mind in calculating Chaucer's dates.

2. Here "thy left side" means the left side of thine own body, and therefore the right or Eastern edge of the Astrolabe. In taking the altitude of the sun, the rays are allowed to shine through the holes; but the stars are observed by looking through them. See figs. 1 and 3.



[Ad cognoscendum quidlibet tempus dici per solis indicacionem, & quodlibet tempus noctis per quasdam stellas in celo fixas; ac eciam ad inveniendum & cognoscendum signum super orizontem qui communiter vocatur ascendens.]

¶ Tak the altitude of the sonne whan the list, as I haue said;  
 ¶ & set the degree of the sonne, in kas þat it be by-forñ the Middel of the day, among thin al-my-kanteras on the est side of thin  
 4 astralabie; & gif it be after the Middel of the day, set the degree of thy sonne vp-on the west side / tak this manere of setting for a general rewle, ones for euere. ¶ & whan thou hast set the degree of thy sonne vp as many Almykanteras of heyhte as was the alti-  
 8 tude of the sonne takyn by thi rewle, ¶ ley ouer thi label, vp-on the degree of the sonne; ¶ & thanne wol the point of thi label sit[t]en in the bordure, vp-on the verrey tid of the day. Ensampl as thus / the yer of owre lord 1391, the 12 day of March, I wold knowe the  
 12 tyd of the day. I tok the altitude of my sonne, ¶ & fond þat it was 25 degrees and 30 of Minutes of heyhte in the bordure on the bak-side. ¶ tho turnede I Myn astrelabie, & by cause that it was by-forñ Midday, I turnede Mi riet and sette the degree of the sonne,  
 16 that is to seyn the .1. degree of Aries / on the riht side of myn Astralabie, vp-on þat 25 degrees & 30 of Minutes of heyhte among myn almy-kanteras / tho leide I my label vp-on the degree of my  
 [\* Fol. 10 b.] sonne, & fond the poynte \* of my label in the bordure, vp-on  
 20 a capital lettre þat is cleped an X; tho rekened I alle the capitalles lettres fro the lyne of Midnyght vn-to this forseide lettre X, & fond þat it was 9 of the klokke of the day. tho loked I do[w]n vp-on the Est Orisonte, and fond there the 20 degree of gemynis assending;

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3. Drop the disc (fig. 5) within the border of the mother, and the *Rete* over it. Take the altitude by § 2, and let it be  $25\frac{1}{2}^{\circ}$ . As the altitude was taken by the *back* of the Astrolabe, turn it over, and then let the *Rete* revolve westward till the 1st point of Aries is just within the altitude-circle marked 25, allowing for the  $\frac{1}{2}$  degree by guess. This will bring the denticle near the letter C, and the first point of Aries near X, which means 9 A.M. At the same time, the 20th degree of Gemini will be on the *horizon obliquus*. See fig. 11, Pl. V. This result can be approximately verified by a common globe thus; elevate the pole nearly  $52^{\circ}$ ; turn the small brass hour-circle so that the figure XII lies on the equinoctial

which þat I tok for Myn assendent. & in this wyse hadde I the 24  
 experience for euer-mo in wich maner I sholde knowe the tyde of the  
 day / & ek myn assendent. ¶ Tho wold I wyte the same nyght fol-  
 wyng the howr of the nyght / & wrowhte in this wyse / among an  
 hep of steris fixe, it liked me for to take the altitude of the feire 28  
 white sterre þat is cleped Alhabor / and fond hir sitting on the west  
 side of the line of Midday, 18 degrees of heylite taken by my rewle  
 on the bak-side. ¶ tho sette I the centre of this Alhabor vp-on 18  
 degrees among myn Almy-kanteras, vp-on the west side; by cause 32  
 þat she was fonden on the west side. tho leide I my label ouer the  
 degree of the sonne þat was descended vnder the weste Orisonte,  
 ¶ & rikened alle the lettres capitals fro the lyne of Midday vn-to þe  
 point of my label in the bordure; ¶ & fond þat it was passed 8 of 36  
 the klokke the space of 2 degrees / tho loked I down vp-on myn est  
 orisonte, ¶ & fond ther 23 degrees of libra assending, whom I tok  
 for myn assendent; & thus lerned I to knowe ones for euer in which  
 Manere I shuld come to the howre of the nyht / and to myn assendent; 40  
 as verreyli as may be taken by so smal [an] instrument / but natheles  
 in general wold I warne the for euere / ne mak the neuere bold to  
 haue take a Iust Ascendent by thin Astrilabie, or elles to haue sette  
 Iustly a klokke, whan any celestial body by which þat thow wenest 44  
 gouer e thilke thynges ben ney the sowth lyne / for trust wel, whan  
 þat þe sonne is ney the Meridional lyne, the degree of the sonne  
 rennyth so longe consentrik vp-on the almy-kanteras, þat sothly  
 thow shalt erre fro the Iust assendent / the same conclusioun sey I by 48  
 þe centre of any sterre fix by nyht; and more-ouer, by experience, I  
 wot wel that in owre Orisonte, from .xi. of the klokke vn-to on of the

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colure; then turn the globe till IX lies under the brass meridian. In the next example, by the Astrolabe, let the height of Alhabor (Sirius) be about 18°. Turn the denticle Eastward till it touches the 58th degree near the letter O, and it will be found that Alhabor is about 18° high among the *almicanteras*, whilst the first point of Aries points to 32° near the letter H, i. e. to 8 minntes past 8 p.m.; whilst at the same time, the 23rd degree of Libra is almost on the *Horizon obliquus* on the Eastern side. By the globe, at about 8 min. past 8 p.m., the altitude of Sirius is very nearly 18°, and the 23rd of Libra is very near the Eastern horizon. See fig. 12, Plate V.



elokke, in takyng of a Iust assendent in A portatif Astrelabie, hit is  
 52 to hard to knowe. I mene, from .xi. of the elokke by-forn the howre  
 of noon til on of the elok next folwyng. ¶ & for the more declar-  
 acion, lo her thi figure.

[Fol. 11]

## 4. Special declaracion of the assendent.

## [Specialis declaracio de ascendente.]

¶ The assendent sothly, as wel in alle natiuitez as in questiouns  
 & elecciouns of tymes, is a thing which þat thise Astrologiens gretly  
 obseruen / wherfore me semeth conuenient, sin þat I speke of the  
 4 assendent, to make of it special declaracioun / The assendent sothly,  
 to take it at the [largeste], is thilke degree þat assendith at any of  
 thise forseide tymes v[po]n the est Orisonte ; & there-for, yif þat any  
 planet assende at þat same tyme in thilke for-seide [degre of] his lon-  
 8 gitude, Men seyn þat thilke planete is in *horosco*po. ¶ but sothly, the  
 hows of the assendent, þat is to seyn, the firste hous or the est Angle,  
 is a thing more brod & large. ¶ For after the statutz of Astrolo-  
 giens, what celestial body þat is 5 degres a-boue thilk degre þat  
 12 assendith, or with-in þat nowmbre, þat is to seyn, nere the degree  
 þat assendith / yit rikne thei thilke planet in the Assendent. ¶ And  
 what planete þat is vnder thilke degree þat assendith the space of [25]  
 degres, ¶ yit sein thei that thilke planete is lyk to him þat is [in] the  
 16 hows of the assendent / but sothly, yif he passe the bondes of thise  
 forseide spaces, a-boue or by-nethe, they sein þat the planete is  
 failling fro the assendent ; / yit sein thise Astrolog[i]ens, that the  
 assendent ¶ & eke the lord of the assendent, may be shapen for to  
 20 be fortunat or infortunat / as thus / a fortunat assendent clepen  
 they whan þat no wykkid planete, as *saturne* or *Mars*, or elles the  
 [\* Fol. 11 b.] tail of the dragoun, is in [þe] hows \*of the assendent, ne þat  
 no wikked planete haue non aspecte of enemyte vp-on the assendent ;  
 24 but they wol caste þat thei haue a fortunat planete in hir assendent  
 & 3it in his felicite, ¶ & than sey they þat it is wel. ¶ further-

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4. The ascendent at any given moment is that degree of the zodiac which is then seen upon the Eastern horizon. Chaucer says that astrologers reckoned in also 5 degrees of the zodiac above, and 25 below ;

ouer, they seyn þat the infortunyng of an assendent is the *contrario* of thise forseide thinges. ¶ the lord of the assendent sey they þat he is fortunat, whan he is in god place fro the assendent as in angle ; 28 or in a succedent, where-as he is in his dignite & *conforted with* frendly aspectys of planetes & [wel] resceiued, & ek that he may sen the assendent, and þat he be nat retrograd ne *combust*, ne ioigned *with* no shrewe in the same signe / ne that he be nat in his des[c]en- 32 cioun, ne ioigned *with* no *planete* in his discencioun, ne haue vp-on him non aspecte infortunat ; & [than] sey they þat he is wel. ¶ natheles, theise ben obseruaunceez of iudicial matiere & rytes of paiens, in which my spirit ne hath no feith, ne no knowyng of hir *horoscopum* ; 36 for they seyn þat euery signe is departid in 3 euene parties by [10] degrees, & thilke porcioun they clepe a face. ¶ & al-though þat a planete haue a latitude fro the Ecliptik, yit sey [some folk] so þat the planete arise in þat same signe wyth any degree of the forseide 40 face in which [h]is longitude is rekned, þat yit is the *planete in horoscopo* / be it in natiuite or in eleccioun, &c. ¶ & for the more declaracioun, lo here the figure.

5. To knowe the verrey equacion of the degree of the sonne, yif so be þat it falle by-twixe thin Almykanteras.

[Ad cognoscendum veram equacionem de gradu solis, si contigerit fore in duas Almicanteras.]

[Fol. 12] ¶ For as moche as the almykanteras in thin astrelabie ben *compownet* by two & two, ¶ where-as some Almykanteras in sondri Astrelabies ben *compownet* by on and on, or elles by 2 & 2, it is necessarie to thy lernyng to teche the first to knowe & worke *with* 4 thin owne Instrument. ¶ wher-for, whan þat the degree of thy sonne falleth by-twixe two Almykanteras / or elles yif thin Almykanteras ben grauen *with* ouer gret a point of a compas / for bothe thise thinges may causen *error* as wel in knowyng of the tid of the 8 day as of the verrey Assendent / thow Most werken in this wise.

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the object being to extend the planet's influence over a whole "house," which is a space of the same length as a *sign*, viz. 30°. See § 36.

5. This merely amounts to taking the mean between two results.

¶ Set the degree [of] thy sonne vp-on the heyer Almykanteras of bothe / & waite wel wher as thin Almury towcheth the bordure, & 12 set ther a prikke of ynke ¶ Set down agayn the degree of thy sonne vp-on the nethere Almy-kanteras of bothe / & set ther another prikke. ¶ remewe thanne thin Almury in the bordure euene amiddes bothe prikkes / & this wol lede iustly the degree of thi sonne to 16 sitte by-twixe bothe Almykanteras in his riht place. ¶ ley thanne thy label ouer the degree of thy sonne ; & find in the bordure the verrey tide of the day or of the nyht. ¶ & as verreyly shaltow fynde vp-on thin est orisonte thyn assendent ¶ & for more declaracion, lo here thi figure.

[Fol. 12 b.] 6. To knowe the spring of the dawying & the ende of the euenyng, the which ben called the two crepusculus :

[Ad cognoscendum ortum solis & eius occasum, que uocatur vulgariter crepusculum.]

¶ Set the nadir of thy sonne vp-on 18 degrees of heyhte / Among thyn Almykanteras on the west side, & ley thy label on þe degree of thy sonne, & thanne shal the poynt of thi label schewe the 4 spryng of day. ¶ Also set the nadir of thy sonne vp-on 18 degrees of heyhte a-mong thin Almykanteras on the [est] side, & ley ouer thy label vp-on the degree of the sonne / & with the point of thy label fynd in the bordure the ende of the euenyng, þat is, verrey 8 nyht. the nadir of the sonne is thilke degree þat is opposit to the degree of the sonne, in the 7 signe, as thus / euery degree of aries bi ordre is nadir to euery degree of libra by ordre / & taurus to Scorpion / gemini to Sagittare / Cancer to Capricorne / leo to aquarie / 12 virgo to pisees / & ȝif any degree in thi zodiak be dirk, [h]is nadire shal declare him. ¶ & for the more declaracion, lo heere thi figure.

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6. This depends upon the refraction of light by the atmosphere, owing to which light from the sun reaches us whilst he is still  $18^{\circ}$  below the horizon. The nadir of the sun being  $18^{\circ}$  high on the W. side, the sun itself is  $18^{\circ}$  below the Eastern horizon, giving the time of dawn ; and if the nadir be  $18^{\circ}$  high on the E. side, we get the time of the end of the evening twilight. Thus, at the vernal equinox, the sun is  $18^{\circ}$  high soon after 8 A.M. (roughly speaking), and hence the evening twilight ends soon after 8 P.M., 12 hours later, sunset being at 6 P.M.

7. To knowe the arch of the day, that some folk kallen the day artificial, from the sonne arisyng til hit go to rest[e].

[Ad cognoscendum archum diei, quem vulgus vocat diem artificialem in hoc ab ortu solis vsque ad occasum.]

¶ Set the degree of thy sonne vp-on thin Est orisonte, & ley thy label on the degree of the sonne, & at the poynt of thy label in the bordure set a prikke. ¶ Turne thanne thi riet aboute til the degree [Fol. 13] of the sonne sit vp-on the west Orisonte, & ley thi label vp- 4 on the same degree of the sonne, & at the point of thi label set a-nother prikke. ¶ rekne thanne the quantite of tyme in the bordure by-twixe bothe prikkes, & tak ther thin ark of the day. ¶ the remenant of the bordure vnder the Orisonte is the ark of the 8 nyht. ¶ thus maistow rekne bothe arches / or euery porcion, of whether þat the liketh. ¶ & by this Manere of wyrkyng / Maistow se how longe þat any sterre fix dwellith a-boue the erthe, fro tyme þat he risith til he go to reste. ¶ but the day natural, þat is to 12 seyn 24 hours, is the reuolucio<sup>un</sup> of the equinoxial with as moche partie of the zodiak as the sonne of his propre Moeninge passeth in the mene while. ¶ & for the more declaracioun, lo her thi figure.

### 8. To turne the howres in-euales in howres equales.

[Ad conuertendum horas ineuales in horas equales.]

¶ Knowe the nombre of the degrees in the howris in-euales, & departe hem by 15, & tak ther thin howris equales. [¶ & for the more declaracioun, lo here thi figure.]

7. Ex. The sun being in the 1st point of Cancer on the longest day, its rising will be shewn by the point in fig. 5 where the *horizon obliquus* and *Tropicus Caceri* intersect; this corresponds to a point between P and Q in fig. 2, or to about a quarter to 4 A.M. So too the sunset is at about a quarter past 8, and the length of the day  $16\frac{1}{2}$  hours; hence also, the length of the night is about  $7\frac{1}{2}$  hours, neglecting twilight.

8. On the same day, the number of degrees in the whole day is about  $247\frac{1}{2}$ , that being the number through which the *Rete* is turned in the example to § 7. Divide by 15, and we have  $16\frac{1}{2}$  equal hours.

[Fol. 13 b.] 9. To knowe the quantite of the day vulgare, that is to seyn, from spring of the day vn-to verrey nyht.

[Ad cognoscendum quantitatem diei vulgaris, viz. ab ortu diei vsque ad noctem.]

¶ Know the quantite of thi crepuseulis, as I haue tawht in the chapitre by-forn, & adde hem to the arch of thi day artificial / & tak ther the space of alle the hole day vulgar, vn-to verrey nyht. / The same manere maistow worke to knowe the quantite of the vulgar nyht. / & for the more declaracioun, lo here the figure.

### 10. To knowe the quantite of howres in-euales by day.

[Ad cognoscendum horas inequales[s] in die.]

¶ Vnderstond wel, þat thise howris in-equalis ben cleped howres of planetes, & vnderstond wel þat som tyme ben thei lengere by day [than] by nyht, & som tyme the contrarie. ¶ but vnderstond wel 4 þat euermo generally þe howr in-equal of the [day with þe howr in-equal of the] nyght contenen [30] degrees of the bordure, whiche bordure is euermo answering to the degrees of the equinoxial; wherfor departe the arch of the day artificial in 12, & tak ther the quantite of the howr in-equal by day. ¶ & 3if thow abate the quantite of the howr in-equal by daye owt of 30 / than shal the remenant þat leueth performe the howr inequal by nyght. ¶ & for the more declaracioun, lo here the figure.

### [Fol. 14] 11. To knowe the quantite of howres equales.

[Ad cognoscendum quantitatem horarum inequalium.]

¶ The quantite of howres equales, þat is to seyn, the howres of the klokke / ben departid by 15 degrees al-redy in the bordure

9. The "day vulgar" is the length of the "artificial day," with the length of the twilight, both at morn and at eve, added to it.

10. If, as in § 7, the day be  $16\frac{1}{2}$  hours long, the length of each "hour inequal" is 1 h.  $22\frac{1}{2}$  m.; and the length of each "hour inequal" of the night is the 12th part of  $7\frac{1}{2}$  hours, or  $37\frac{1}{2}$  m.; and 1 h.  $22\frac{1}{2}$  m., added to  $37\frac{1}{2}$  m., will of course make up 2 hours, or 30°.

of thin astralabie, as wel by nyht as by day, generally for euere. ¶ What nedith more declaracioun? ¶ Wher-for, whan the list to 4 know how manye howres of the klokke ben passed, or any part of any of thise howris þat ben passed, ¶ or elles how many howres or partie of howres ben to come, fro swich a tyme to swych a tyme, by day or by nyhte, ¶ knowe the degree of thy sonne, & ley thy label on it / 8 turne thi Riet abowte ioyntly with thy label, & with the point of it rekne in the bordure fro the sonne arise vn-to the same place ther thow desirest, by day as by nyhte / this conclusioun wol I declare in the laste chapitre of the [4] partie of this tretis so openly, þat [þer] 12 shal lakke no worde þat nedith to the declaracioun. ¶ & for the more declaracioun, lo here the figure.

## 12. Special declaracioun of the howres of planetes.

### Specialis declaracio de horis planetarum.]

¶ Vnderstond wel, þat euere-mo fro the arising of [the] sonne til it go to reste / the nader of the sonne shal shewe the howr of the planete / & fro that tyme forward / al the nyht til the sonne arise / than shal the verrey degree of the sonne shewe the howr of the 4 planete. Ensampl as thus. ¶ the xiiij. day of March fil vp-on a saterday *per* auenture / & at the arising of the sonne, I fond the secounde degree of aries sitting vp-on myn est Orisonte, al be it þat it was but lite ; \* than fond I the [2] degree of libra, nadir of [\* Fol. 116.] 8 my sonne, descending on my west Orisonte, vp-on which west Orisonte euery day generally, at the sonne ariste, entrieth the howr of any planete, after which planete the day berith his name ; ¶ & endith in

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11. This merely repeats that 15° of the border answer to an hour of the clock.

12. This "hour of the planet" is a mere astrological supposition, involving no point of astronomy. Each hour is an "hour unequal," or the 12th part of the artificial day or night. The assumptions are so made that the *first* hour of every day may resemble the *name of the day*; the first hour of Sunday is the hour of the *Sun*, and so on. These hours may be easily found by the following method. Let 1 represent both Sunday and the Sun; 2, Monday and the Moon; 3, Tuesday and Mars; 4, Wednesday and Mercury; 5, Thursday and Jupiter; 6, Friday and Venus; 7,



12 the nexte strik of the plate vnder the forseide west Orisonte / & euere  
 as the sonne clymbith vppere & vppere, so goth his nadir downere  
 & downere, techyng by swych strikes the howres of planetes by ordre  
 as thei sitten in the heuene. the first howr inequal of euery Sat-  
 16 terd[a]y is to Saturne; ¶ & the secounde to Iupiter; ¶ the 3 to  
 Mars; the 4 to the sonne; ¶ the 5 to venus; ¶ the 6 to *Mercurius*;  
 ¶ the 7 to the mone; ¶ & thanne agayn the 8 is to saturne; ¶ the  
 9 to Iupiter; ¶ the 10 to Mars; ¶ the 11 to the sonne; ¶ the 12  
 20 to venus; ¶ And now is my sonne gon to reste as for that setter-  
 day. ¶ Thanne shewyth the verrey degree of the sonne the howr  
 of *Mercurie* entryng vnder my west orisonte at eue; ¶ & next him  
 succedith the Mone; ¶ & so forth by ordre, planete aftur planete,  
 24 in howr after howr, al the nyht longe til the sonne arise. ¶ now  
 risith the sonne pat Sondag be the morwe; ¶ & the nadir of the sonne  
 vp-on the west Orizonte shewith me the entring of the howre of the  
 forseide sonne. ¶ & in this maner succedith planete vnder planete,  
 28 fro saturne vn-to the mone, & fro the mone vp a-gayn to satourne,  
 howre after howre generally. ¶ & thus know[e] I this conclusioun.  
 ¶ & for the more declaracioun, lo here the figure.

Saturday and Saturn. Next, write down the following succession of figures, which will shew the hours at once.

1642753|16427531642753164275316.

Ex. To find the planet of the 10th hour of Tuesday. Tuesday is the third day of the week; begin with 3, to the left of the upright line, and reckon 10 onwards; the 10th figure (counting 3 as the *first*) is 6, i. e. Venus. So also, the planet of the 24th hour of Friday is the Moon, and Saturday begins with Saturn. It may be observed that this table can be carried in the memory, by simply observing that the numbers are written, beginning with 1, in the *reverse order of the spheres*, i. e. Sun, Venus, Mercury, Moon; and then (beginning again at the outmost sphere) Saturn, Jupiter, Mars. This is why Chancer takes a *Saturday*; that he may begin with the remotest planet, *Saturn*, and follow the reverse order of the spheres. See fig. 10, Pl. V. Here, too, we have the obvious reason for the succession of the names of the days of the week, viz. that the planets being reckoned in this order, we find the Moon in the 25th place or hour from the Sun, and so on.

[Fol. 15] 13. To knowe the altitude of the sonne in Middel of the day, that is cleped the altitude Meridian.

[Ad cognoscendum altitudinem solis in medio diei, que vocatur altitudo meridiana.]

¶ Set the degree of the sonne vp-on the lyne Meridional, & rikene how many degrees of Almykanteras ben by-twix thyn est Orisonte & the degree of the sonne. ¶ & tak ther thyn altitude Meridian / this [is] to seyne, the heiest of the sonne as for that day. 4  
 ¶ So maistow knowe in the same lyne, the heiest cours þat any sterre fix clymbith by nyht; ¶ this is to seyn, þat w[h]an any sterre fix is passed the lyne Meridional, than by-gynnyth it to descende, & so doth the sonne. ¶ & for the more declaracioun, lo here thi 8  
 figure.

14. To knowe the degree of the sonne by thy riet, for a maner curiosite, &c.

[Ad cognoscendum gradum solis curiose.]

¶ Sek bysily with thi rewle the heiest of the sonne in Middel of the day; ¶ turne thanne thyn Astrelabie, & with a prikke of ynk marke the nombre of þat same Altitude in the lyne Meridional. turne thanne thy Ryet a-bowte til thou fynde a degree of thi 4  
 zodiak acording with the prikke, ¶ this is to seyn, sittynge on the prikke; ¶ & in soth, thou shalt fynde but 2 degrees in al the zodiak of that condicioun; ¶ & yit thilke 2 degrees ben in diuerse signes; ¶ than maistow lyhtly by the sesoun of the yere knowe the 8  
 signe in whiche þat is the sonne. [¶ & for the more declaracioun, lo here thi figure.]

13. The reason of this is obvious from what has gone before. The sun's meridional altitude is at once seen by placing the sun's degree on the South line.

14. This is the exact converse of the preceding. It furnishes a method of testing the accuracy of the drawing of the almikanteras.

[Fol. 15 b.] 15. To know which day is lik to wych day as of lengthe, &c.

[Ad cognoscendum quales dies in longitudine sunt similes.]

¶ Loke whiche degrees ben illik fer fro the heuedes of Cancer & Capricorn; & lok, whan the sonne is in any of thilke degrees, than ben the dayes ilike of lengthe. ¶ this is to seyn, þat as long 4 is þat day in þat Monthe, as was swych a day in swich a month ¶ ther variet[h] but lite. ¶ Also yif þow take 2 daies naturally in the yer ilike fer fro eyther point of [the] equinoxial in the opposit parties, ¶ than as long is the day artificial of þat on day / as is the 8 nyht of þat othere, & the contrarie. ¶ & for [the] more declaracioun, lo here thi figure.

16. This chapitre is a Maner declaracioun to conclusiouns þat folwen.

[Illud capitulum est quedam declaracio ad certas conclusiones sequentes.]

¶ Vnderstond wel þat thy zodiak is departid in 2 halfe cereles, as fro the heued of capricorne vn-to the heued of Cancer / & agaynward fro the heued of cancer vn-to the heued of Capricorne. 4 ¶ the heued of Capricorne is the lowest point, wher as the sonne goth in wyuter; ¶ & the heued of Cancer is the heiest point, in whiche the sonne goth in somer. ¶ & thier-for vnderstond wel, þat any two degrees þat ben ilike fer fro any of thise two heuedes / truste 8 wel þat thilke two degrees ben of il[i]ke declinacioun, be it sowthward or northward; & the daies of hem ben ilike of lengthe, & the

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15. This is best done by help of the *back* of the instrument, fig. 1. Thus May 13 (old style), which lies 30° to the W. of the S. line, is nearly of the same length as July 13, which lies 30° to the E. Secondly, the day of April 2 (old style), 20° above the W. line, is nearly of the same length as the night of Oct. 2, 20° below the E. line, in the opposite point of the circle. This is but an approximation, as the divisions on the instrument are rather minute.

16. This merely expresses the same thing, with the addition, that on days of the same length, the sun has the same meridional altitude, and the same declination from the equator.

nyhtes also ; & the shadwes ilike, & the Altitudes ilike at Midday for euere. ¶ & for more declaracioun, lo here thi figure.

[Fol. 16] 17. To knowe the verrey degree of any maner sterre straunge or vnstraunge after his longitude, thow he be indeterminat in thin astralabie ; sothly to the trowthe, thus he shal be knowe.

[Ad cognoscendum verum gradum alicuius stelle aliene secundum eius latitudinem (*sic*), quamvis sit indeterminata in astro-labio ; veraciter isto modo.]

¶ Tak the altitude of this sterre whan he is on the Est side of the lyne Meridional, as ney as thow maist gesse ; ¶ & tak an assendent a-non riht by som maner sterre fix which þat þow knowest ¶ & for-get nat the altitude of the firste sterre, ne thyn assendent ; 4 & whan þat this is don / espie diligently whan this same firste sterre passeth any-thing the sowth westward, and hath him a-non riht in the same nowmbre of altitude on the west side of this lyne Meridional ¶ as he was kawht on the est side ; & tak a newe assendent a-non 8 riht by som Maner sterre fixe which þat thow knowest ; & for-get nat this secounde assendent. ¶ and whan þat this is don, rikne thanne how manye degrees ben by-twixe the firste assendent & the secounde assendent / & rikne wel the Middel degree by-twyne bothe Assend-12

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17. Here *passeth any-thing the sowth westward* means, passes somewhat to the westward of the South line. The problem is, to find the degree of the zodiac which is on the meridian with the star. To do this, find the altitude of the star *before* it souths, and by help of problem 3, find out the ascending degree of the zodiac ; secondly, find the ascending degree at an equal time *after* it souths, when the star has the same altitude as before, and the mean between these will be the degree that ascends when the star is on the meridian. Set this degree upon the Eastern part of the *horizon obliquus*, and then the degree which is upon the meridional line souths together with the star. Such is the solution given, but it is but a very rough approximation, and by no means always near to the truth. An example will shew why. Let Arcturus have the same altitude at 10 P.M. as at 2 A.M. In the first case the 4th of Sagittarius is ascending, in the second (with sufficient accuracy for our purpose) the 2nd of Aquarius ; and the mean between these is the 3rd of Capricorn. Set this on the Eastern horizon upon a globe, and it will be

entes, & set thilke Middel degree vp-on thin est Orisonte ; ¶ & waite thanne what degre þat sit vp-on the line Meridional, & tak ther the verrey degre of the Ecliptik in which the sterre stondeth for  
 16 the tyme. ¶ For in the Ecliptik is the longitude of a celestial body rekened, euene fro the heued of aries vn-to [the] ende of pisces. ¶ & his latitude is Rikned after the quantite of [h]is declinacioun, north or sowth to-warde þe poles of this world / as thus. ¶ yif it be  
 20 of the sonne or of any fix sterre / rekene [h]is latitude or his declinacioun fro the Equinoxial cerele ; ¶ & yif it be of a planete, rekne than the quantite of [h]is latitude fro the Ecliptik lyne. ¶ Al be it so þat fro [the] Equinoxial may the declinacioun or the latitude of any  
 24 body celestial be rikned, after the site north or south, & after the quantite of [h]is declinacioun. ¶ & riht so may the latitude or the declinacioun of any body celestial, saue only of the sonne, after his site north or south, & after the quantite of his declinacioun, be rekned fro  
 28 the Ecliptik lyne ; ¶ Fro which lyne alle planetes som tyme declinen north or south, saue only the for-seide sonne. ¶ & for the more declaracioun, lo here thi figure.

seen that it is 20 min. past midnight, that  $10^{\circ}$  of Scorpio is on the meridian, and that Arcturus has past the meridian by  $5^{\circ}$ . At true midnight, the ascendent is the  $29^{\circ}$  of Sagittarius. The reason of the error is that right ascension and longitude are here not sufficiently distinguished. By observing the degrees of the *equinoctial*, instead of the *ecliptic*, upon the Eastern horizon, we have at the first observation  $272^{\circ}$ , at the second  $332^{\circ}$ , and the mean of these is  $302^{\circ}$ ; from this subtract  $90^{\circ}$ , and the result,  $212^{\circ}$ , gives the right ascension of Arcturus very nearly, corresponding to which is the beginning of the  $5^{\circ}$  of Scorpio, which souths along with it. This latter method is correct, because it assumes the motion to take place round the axis of the equator. The error of Chaucer's method is that it identifies the motion of the equator with that of the ecliptic. The amount of the error varies considerably, and may be rather large. But it can easily be diminished, (and no doubt was so in practice), by taking the observations *as near the south line as possible*. Curiously enough, the rest of the section explains the difference between the two methods of reckoning. The modern method is to call the co-ordinates *right ascension* and *declination*, if reckoned from the equator, and *longitude* and *latitude*, if from the ecliptic. Motion in *longitude* is not the same thing as motion in *right ascension*.

[Fol. 16 b.] 18. To knowe the degrees of the longitudes of fixe sterres after þat they ben determinat in thin astralabie, yif so be þat they ben trewly set.

[Ad cognoscendum gradus longitudinis de stellis fixis que determinantur in astrolabio, sicut in suis locis recte locentur.]

¶ Set the centre of the sterre vp-on the lyne Meridional, & tak kep of thi zodiak, ¶ & loke what degree of any signe þat sit on the same lyne Meridional at þat same tyme, & tak the degree in which the sterre standith; ¶ & with that same degree com[e]th þat same sterre vn-to that same lyne fro the Orisonte. ¶ & for more declaracioun, lo here thi figure.

19. To knowe with which degree of the zodiak any sterre fixe in thin Astrelabie arisith vp-on the est Orisonte, Al-they [h]is dwellyng be in a-nother signe.

[Ad cognoscendum cum quibus gradibus zodiaci que stella fixa in astrolabio ascendit super orizontem orientalem, quamuis eius orizon (*sic*) sit in alio signo.]

¶ Set the Sentre of the sterre vp-on the est Orisonte, ¶ & loke what degree of any signe þat sit vp-on the same Orisonte at þat same tyme. ¶ And vnderstond wel, þat with þat same degre arisith þat same sterre; and thys \*merueyllous arising with a strange de- [Fol. 17] 4. gree in another signe is by-cause þat the latitude of the sterre fix is either north or sowth fro the equinoxial. ¶ but sothly, the latitudes

18. The "centre" of the star is the technical name for the extremity of the metal tongue representing it. The "degree in which the star standeth" is considered to be that degree of the zodiac which souths along with it. Thus Sirius or Alhabor has its true longitude nearly equal to that of 12° of Cancer, but, as it souths with the 9th degree, it would be said to stand in that degree. This may serve for an example; but it must be remembered that its longitude was different in the time of Chancer.

19. Also it rises with the 19th degree of Leo, as it is at some distance from the zodiac in latitude. The same "marvellous arising in a strange sign" is hardly because of the latitude being north or south from the *equinoctial*, but rather because it is north or south of the *ecliptic*. For example, Regulus ( $\alpha$  Leonis) is on the ecliptic, and of courses rises



of planetes ben comu[n]ly rekned fro the Ecliptik, bi-cause þat non  
8 of hem declinet[h] but fewe degrees owt fro the brede of the zodiak.

¶ & tak god kep of this chapitre of arising of the celestial bodies ;  
for truste wel, þat neyther mone ne sterre as in owre Embelif  
orizonte arisith with þat same degree of his longitude, saue in O cas ;  
12 ¶ & that is, whan they haue no latitude fro the Ecliptik lyne. but  
natheles som tyme is eueriche of thes planetes vnder the same lyne.  
¶ & for more declaracioun, lo here thi figure.

## 20. To knowe the declinacioun of any degree in the zodiak fro the equinoxial cercele, &c.

[Ad cognoscendum declinacionem alicuius gradus [in] zodiaco  
[a] circulo equinoctiali.]

¶ Set the degree of any signe vp-on the lyne Meridional, &  
rikne [h]is altitude in Almykanteras fro the Est Orizonte vp to the  
same degree set in the forseide lyne, & set ther a prikke. ¶ turne vp  
4 thanne thy Riet, and set the heued of aries or libra in the same  
Meridional lyne, & set ther a-nother prikke. ¶ & whan þat this is  
[\* Fol. 17 b.] don, considere the \*Altitudes of hem bothe ; for sothly the  
difference of thilke altitudes is the declinacion of thilke degre fro  
8 the equinoxial. ¶ & yif so be þat thilke degree be northward fro the  
equinoxial, than is his declinacion north ; ¶ yif it be sowthward,  
than is it sowth. ¶ & for the more declaracioun, lo here thi figure.

with that very degree in which it is. Hence the reading *equinoctial*  
leaves the case in doubt, and we find a more correct statement just be-  
low, where we have "whan they haue no latitude fro the Ecliptik lyne."  
At all places, however, upon the earth's equator, the stars will rise with  
the degrees of the zodiac in which they stand.

20. Here the disc (fig. 5) is supposed to be placed beneath the Rete  
(fig. 2). The proposition merely tells us that the difference between the  
meridian altitudes of the given degree of the zodiac and of the 1st point  
of Aries is the *declination* of that degree, which follows from the very de-  
finition of the term. There is hardly any necessity for setting the second  
prick, as it is sufficiently marked by being the point where the equinoc-  
tial circle crosses the south line. If the given degree lie *outside* this  
circle, the declination is *south* ; if *inside*, it is *north*.

21. To knowe for what latitude in any region the Almikanteras of any table ben compowned.

[Ad cognoscendum pro qua latitudine in aliqua regione almicantræ tabule mee sunt composite.]

¶ Rikne how manie degrees of Almikanteras in the Meridional lyne be fro the cercle equinoxial vn-to the senyth ; ¶ Or elles fro the pool artik vn-to the north Orisonte ; & for so gret a latitude or for so smal a latitude is the table compowned. ¶ & for more declaracion, 4  
lo here thi figure.

[Fol. 18] 22. To knowe in special the latitude of owre countray, I mene after the latitude of Oxenford, & the heyhte of owre pol.

[Ad cognoscendum specialiter latitudinem nostri centri (*sic*), scilicet latitudinem Oxonie, et altitudinem poli nostri.]

Vnderstond wel, þat as fer is the heued of aries or libra in the equinoxial from owre orisonte as is the cenyth fro the pole artik ; ¶ & as hey [is] the pol Artik fro the Orisonte as the Equinoxial is fer fro the senyth. ¶ I proue it thus by the latitude of Oxenford / 4  
vnderstond wel, þat the heyhte of owre pool Artik fro owre north Orisonte is 51 degrees & 50 Minutes ; than is the cenyth from owre pool Artik 38 degrees & 10 Minutes ; than is the equinoxial from owre senyth 51 degrees & 50 Minutes ; ¶ than is owre south Orisonte 8  
from owre equinoxial 38 degrees & 10 Minutes. ¶ vnderstond wel

21. In fig. 5, the almicanteras, if accurately drawn, ought to shew as many degrees between the south point of the equinoctial circle and the zenith as are equal to the latitude of the place for which they are described. The number of degrees from the pole to the northern point of the *horizon obliquus* is of course the same. The latitude of the place for which the disc is constructed is thus determined by inspection.

22. In the *first* place where "*orisonte*" occurs, it means the *South* point of the horizon ; in the *second* place, the *North* point. By referring to fig. 13, Plate V, it is clear that the arc  $\gamma S$ , representing the distance between the equinoctial and the S. point is equal to the arc ZP, which measures the distance from the pole to the zenith ; since  $\angle PO\gamma$  and  $\angle ZOS$  are both right angles. Hence also Chaucer's second statement, that the arcs PN and  $\gamma Z$  are equal. In his numerical example, PN is  $51^{\circ} 50'$  ;

this Reknyng. ¶ Also for-get nat þat the cenyth is 90 degrees of heyhte fro the Orisonte, & owre equinoxial is 90 degrees from owre pool Artik. ¶ Also this shorte rewle is soth, þat the latitude of any place in a regioun is the distance fro the senyth vnto the Equinoxial. ¶ & for more declaracioun, lo here þi figure.

**23. To proue evidently the latitude of any place in a Region, by the preue of the heyhte of the pol Artik in þat same place.**

[Ad probandum euidenter latitudinem alicuius loci in aliqua regione, per probacionem altitudinis de polo artico in eodem loco.]

In some wynters nyht, whan the firmament is clere & thikke-sterred / waite a tyme til þat any sterre fix sit lyne-riht perpendicular [\* fol. 18 b.] ouer \* the pol Artik, & clepe þat sterre A. ¶ & wayte a-nother 4 sterre þat sit lyne-riht vnder A, & vnder the pol / & clepe þat sterre F. And vnderstond wel, þat F is nat consideret but only [to] declare þat A sit euene ouere the pool. ¶ tak thanne a-non riht the altitude of A from the Orisonte / & forget it nat. ¶ Lat A & F go far-8 wel til agayns the dawenyng a gret while / & come thanne agayn & Abid til þat A is euene vnder the pol & vnder F; ¶ for sothly, than wole F sit ouer the pool / & A wol sit vnder the pool. ¶ tak than eft-sones the altitude of A from the Orisonte ¶ & note as wel [h]is 12 secounde altitude as his furste Altitude / & whan þat this is don, ¶ rikne how manye degrees þat the firste altitude of A excedith his secounde altitude, ¶ & tak half thilke porcioun þat is excedit, & adde it to his secounde altitude; ¶ & tak ther the eleuacioun of thi pool, 16 & eke the latitude of thy regioun; ¶ for thise two ben of a nombre; ¶ this is to seyn, as many degrees as thy pool is eleuat / so michel

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and therefore ZP is the complement, or  $38^{\circ} 10'$ . So also  $\angle Z$  is  $51^{\circ} 50'$ ; and  $\angle S$  is  $38^{\circ} 10'$ . Briefly,  $\angle Z$  measures the latitude.

**23.** Here the altitude of a star (A) is to be taken twice; firstly, when it is on the meridian in the most *southern* point of its course, and secondly, when on the meridian in the most *northern* point, which would be the case twelve hours later. The mean of these altitudes is the altitude of the pole, or the latitude of the place. In the example given, the star A is only  $4^{\circ}$  from the pole, which shews that it is the Pole-star, then farther

is the latitude of the Region. ¶ Ensample as thus: *par* aventure the altitude of A in the euenyng is 56 degrees of heyhte ¶ than wol his seconde altitude or the dawyng be 48 / þat is [8] lasse than 56, 20 þat was his furste altitude at euen. ¶ take thanne the half of 8 / & adde it to 48, þat was [h]is seconde altitude, and [than] hastow 52. ¶ now hastow the heyhte of thy pol and the latitude of the region. ¶ but vnderstond wel þat to proue this conclusioun & many a-nother 24 fair conclusioun, thow most haue a plomet hanging on a lyne heyer than thin heued on a *perche* ¶ & thilke lyne mot hange euene *perpendiculer* by-twixe the pool & thin eye / & thanne shal-tow sen yif A sitte euene ouer the pool & ouer F at euene / & also yif F sitte euene 28 ouer the pool & ouer A or day. ¶ & for more declaracion, lo here thi figure.

[Fol. 19] 24. Another conclusioun to proue the heyhte of the pool  
Artik fro the orisente.

[Alia conclusio ad probandum altitudinem de polo artico ab  
orizonte.]

Tak any sterre fixe þat neuere dissendith vnder the Orisonte in thilke region, & considere his heiest altitude & his lowest Altitude fro the Orisonte ; ¶ & make a nombre of bothe thise altitudes ; tak thanne & abate half þat nombre, & tak *per* the eleuacioun of the pol 4 Artik in þat same Region / & for more declaracioun, lo here thi figure.

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from the Pole than it is now. The star F is, according to Chaucer, any convenient star having a right ascension differing from that of the Pole-star by  $180^\circ$ ; though one having the *same* right ascension would serve as well. If then, at the first observation, the altitude of A be 56, and at the second be 48, the altitude of the pole must be 52. See fig. 13, Plate V.

24. This comes to much the same thing. The *lowest* or northern altitude of Dubhe ( $\alpha$  Ursæ Majoris) may be supposed to be observed to be  $25^\circ$ , and his *highest* or southern altitude to be  $79^\circ$ . Add these; the sum is 104; "abate" or subtract half of that number, and the result is  $52^\circ$ ; the latitude.

## 25. A-nother conclusioun to proue the latitude of the Regioun, &amp;c.

[Alia conclusio ad probandum latitudinem regionis.]

¶ Vnderstond wel þat the latitude of any place in A Regioun is verreyly the space by-twixe the senythe of hem þat dwellen there & [the] equinoxial cerkle, north or sowthe, takyng the mesure in the  
 4 Meridional lyne, as shewith in the Almykanteras of thin Astrelabie.  
 ¶ & thilke space is as moche as the pool artik is hey in the same place fro the Orisonte. ¶ And than is the depressioun of the pol antartik, þat is to seyn, than is the pol antartik by-nethe the  
 8 Orisonte the same quantite of space, neither mor ne lasse. thanne, yif thow desire to knowe this latitude of the Regioun, tak the altitude of the sonne in the Middel of the day, whan the sonne is in the heuedes of aries or of libra / for thanne Moeuyth the sonne in the  
 12 lyne equinoxial ; ¶ & abate the nombre of that same sonnes Altitude [\* Fol. 19 b.] owt of 90, & thanne is the remenaunt \* of the noumbre þat leuyth the latitude of the Regioun, as thus : I suppose that the sonne is thilke day at noon 38 degrees And 10 minutes of heyhte. Abate  
 16 thanne thees degrees And minutes owt of 90 ; so leueth there 51 degrees and 50 minutes, the latitude. ¶ I sey nat this but for ensample ; for wel I wot the latitude of Oxenforde is certein minutes lasse, as y myght proue. ¶ Now yif so be þat the semith to long a  
 20 tarienge, to abide til þat [þe] sonne be in the heuedes of aries or of libra, thanne whaite whan the sonne is in any other degree of the zodiak, & considere the degree of [h]is declinacïon fro the equinoxial lyne ; ¶ & yif it so be þat the sonnes declinacïon be northward fro the  
 24 equinoxial, abate thanne fro the sonnes altitude at noon the nombre

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25. Here, as in § 22, Chaucer says that the latitude can be measured by the arc ZP or PN ; he adds that the depression of the Antarctic pole, viz. the arc SP' (where P' is the S. pole), is another measure of the latitude. He explains that an obvious way of finding the latitude is by finding the altitude of the sun at noon at the time of an equinox. If this altitude be  $38^{\circ} 10'$ , then the latitude is the complement, or  $51^{\circ} 50'$ . But this observation can only be made on two days in the year. If then this seems to be too long a tarrying, observe his midday altitude, and allow for his declination. Thus, if the sun's altitude be  $58^{\circ} 10'$  at noon when he is in the first degree of Leo, subtract his declination, viz.  $20^{\circ}$ , and the result is  $38^{\circ} 10'$ , the complement of the latitude. If, how-

of his declinacion, ¶ & thanne hastow the heyhte of the heuedes of aries & libra; as thus / My sonne is, *par Auenture*, in þe firste degre of leoun, 58 degrees and 10 Minutes of heyhte at noon / & his declinacion is almost 20 degrees northward fro the equinoxial; 28 abate thanne thilke 20 degrees of declinacion owt of the altitude at noon, than leueth the 38 degrees and odde Minutes; lo ther the heued of aries or libra, & thin equinoxial in that Regioun. ¶ Also yif so be þat the sonnes declinacioun be sowthward fro the Equi-32 noxial, ¶ Adde thanne thilke declinacion to the altitude of the sonne at noon / and tak ther the heuedes of aries & libra & thin Equinoxial. ¶ abate thanne the heyhte of the Equinoxial owt of 90 degrees, & thanne leuyth there .þe distans of the pole, 51 degrees & 50 36 Minutes, of that regioun fro the Equinoxial. ¶ Or elles, yif the lest, take the heiest altitude fro the equinoxial of any sterre fix that thow knowest, & tak his nethere elongacioun lengthing fro the same equinoxial lyne, & wirke in the maner forseid. ¶ & for more declara-40 cion, lo here thi figure.

[Fol. 20] 26. Declaracioun of the assensioun of signes, &c.

[Declaracio de ascensione signorum.]

The excellence of the spere solide, amonges other noble conclusiouns, shewyth Manifeste the diuerse assenciouns of signes in diuerse places, as wel in the rihte cercle as in the Embelif cercle. ¶ thise Auctours writen þat thilke signe is cleped of riht Ascensioun, 4 with which more part of the cercle Equinoxial & lasse part of the zodiak ascendith / & thilke signe assendith Embelif, with whiche lasse part of the Equinoxial and more part of the zodiak ascendith.

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ever, the sun's declination be *south*, the amount of it must be added instead of subtracted. Or else we may find  $\varphi F'$ , the highest altitude of a star  $F'$  above the equinoctial, and also  $\varphi F$ , its nether elongation extending from the same, and take the mean of the two.

26. The "Sphere Solid" answers nearly to what we now call a globe. By help of a globe it is easy to find the ascensions of signs for *any latitude*, whereas by the astrolabe we can only tell them for those latitudes for which the plates bearing the almicanteras are constructed. The signs which Chaucer calls "of right (i. e. direct) ascension" are those signs of



8 [Fether ouer they seyn, that in thilke cuntrey where as the senith  
of hem that dwellen there is in the equinoxial lyne and her orisonte  
passyng by the poles of this worlde, thilke folke han this right cercle  
and the right orisonte.] ¶ & euere mo the Arch of the day & the arch  
12 of the nyht is ther ylike long, & the sonne twyes euery yer passinge  
thorow the cenyth of her hened; & 2 someres & 2 wynteres in a yer  
han this forseide poeple. ¶ And the Almykanteras in her Astrolabies  
ben streyhte as a lyne / so as shewyth in this figure. ¶ The vtilite to  
16 knowe the Assenciouns in the rihte cercle is this / truste wel þat by  
mediacioun of thilke assenciouns thise Astrologiens by hir tables &

the zodiac which rise more directly, i.e. at a greater angle to the horizon than the rest. In latitude  $52^\circ$ , Libra rises so directly that the whole sign takes more than  $2\frac{3}{4}$  hours before it is wholly above the horizon, during which time nearly  $43^\circ$  of the equinoctial circle have arisen; or, in Chaucer's words, "the more part" (i.e. a larger portion) of the equinoctial ascends with it. On the other hand, the sign of Aries ascends so obliquely that the whole of it appears above the horizon in less than an hour, so that a "less part" (a smaller portion) of the equinoctial ascends with it. The following is a rough table of Direct and Oblique Signs, shewing approximately how long each sign takes to ascend, and how many degrees of the equinoctial ascend with it, in lat.  $52^\circ$ .

<i>Oblique Signs.</i>	Degrees of the Equinoctial.	Time of ascending.	<i>Direct Signs.</i>	Degrees of the Equinoctial.	Time of ascending.
Capricornus	$26^\circ$	1 h. 44 m.	Cancer	$39^\circ$	2 h. 36 m.
Aquarius	$16^\circ$	1 h. 4 m.	Leo	$42^\circ$	2 h. 48 m.
Pisces	$14^\circ$	0 h. 56 m.	Virgo	$43^\circ$	2 h. 52 m.
Aries	$14^\circ$	0 h. 56 m.	Libra	$43^\circ$	2 h. 52 m.
Taurus	$16^\circ$	1 h. 4 m.	Scorpio	$42^\circ$	2 h. 48 m.
Gemini	$26^\circ$	1 h. 44 m.	Sagittarius	$39^\circ$	2 h. 36 m.

These numbers are sufficiently accurate for the present purpose.

In l. 8, there is a gap in the sense in nearly all the MSS., but the Bodley MS. 619 fortunately supplies what is wanting, to the effect that, at places situated on the equator, the poles are in the horizon. At such places, the days and nights are always equal. Chaucer's next statement is true for *all* places *within the tropics*, the peculiarity of them being that they have the sun vertical twice in a year. The statement about the "two summers and winters" is best explained by the following. "In the tropical climates, . . . seasons are caused more by the effect of the winds (which are very regular, and depend mainly on the sun's position) than by changes in the direct action of the sun's light and heat. The seasons are not a summer and winter, so much as recurrences of wet and dry periods, *two in each year.*" —English Cyclopædia; *Seasons, Change of*. Lastly, Chaucer reverts to places on the equator, where the stars all seem to move in vertical

hir instrumentz knowen verreyly the Assencioun of euery degree & Mynut in al the zodiak, as shal be shewyd. ¶ And nota, þat this forseid rihte orisonte, þat is clepid *orison rectum* / diuileth the 20 equinoxial in-to riht Angles; & the embelif orisonte, wher as the pol is enhawsed vp-on the orisonte, ouerkeruyth the equinoxial in Embelif Angles, as shewith in the figure. ¶ & for the more declaracioun, lo here the figure. 24

27. This is the conclusioun to knowe the Assenciouns of signes in the riht cercle, þat is, *circulus directus*, &c.

[*Ad cognoscendum ascenciones signorum in recto circulo, qui vocatur circulus directus.*]

[Fol. 20 b.] Set the heued of what signe the liste to knowe his Assending in the riht cercle / vp-on [the] lyne Meridional, ¶ & waite wher thin Almury towchiet[h] the bordure, & set ther a prikke / turne thanne thy riet westward til þat the ende of the forseide signe sitte 4 vp-on the Meridional lyne / & eft-sones waite wher thin almury towchith the bordure, & set ther Another prikke. Rikne thanne the nombre of degrees in the bordure by-twyxe bothe prikkes, ¶ & tak the Assencioun of the signe in the riht cercle. And thus maistow 8 wyrke with euery poreioun of thy zodiak, &c. ¶ & for the more declaracioun, lo her thi figure.

28. To knowe the assencions of signes in the Embelif cercle in euery region, I Mene, in *circulo obliquo*.

[*Ad cognoscendum ascenciones signorum in recto (sic!) circulo in omni regione, hoc est, in circulo obliquo.*]

¶ Set the heued of the signe which as the list to knowe his As-

circles, and the almicanteras are therefore straight lines. The line marked *Horizon Rectus* is shewn in fig. 5, where the *Horizon Obliquus* is also shewn, cutting the equinoctial circle obliquely.

27. The real object in this section is to find how many degrees of the equinoctial circle pass the meridian together with a given zodiacal sign. Without even turning the *rete*, it is clear that the sign Aries, for instance, extends through 28° of the equinoctial; for a line drawn from the centre, in fig. 2, through the end of Aries will (if the figure be correct) pass through the end of the 28th degree below the word *Oriens*.

28. To do this accurately requires a very carefully marked Astro-

censioun vp-on the est Orisonte, ¶ & waite wher thyn Almury towch-  
 ith the bordure, & [set] ther a prikke. ¶ turne thanne thy riet  
 4 vpward til þat the ende of the same signe sitte vp-on the Est Ori-  
 sonte / and waite eft-sones wher as thin almury towcheth the  
 bordure, & set ther a-nother prikke. ¶ Rikne thanne the nowmbre  
 of degrees in the bordure by-twyxe bothe prikkes, & tak ther the  
 8 Assencioun of the signe in the Embelif cerele. ¶ & vnderstond wel,  
 þat alle signes in thy zodiak fro the heued of aries vnto the ende  
 of virgo ben cleped signes of the north fro the Equinox[i]al, ¶ &  
 the[se] signes arisen by-twyxe the verrey est & the verrey north in  
 12 owre Orisonte generally for euere; & alle signes fro the heued of  
 libra vn-to þe ende of pisces ben cleped signes of the sowth fro [Fol. 21]  
 the Equinoxial; ¶ & thise signes arisen euer-mo by-twyxe the  
 verrey est & the verrey sowth in owre orisonte. ¶ Also euery signe  
 16 by-twixe the heued of capricorne vn-to the ende of geminis ariseth  
 on owre Orisonte in lasse than 2 howres equales; ¶ & thise same  
 signes, fro the heued of capricorne vn-to the ende of geminis, ben  
 cleped tortuos signes or krokeð signes / for they arisen embelif on  
 20 oure Orisonte; ¶ & thise crokeðe signes ben obedient to the signes  
 þat ben of riht Assencioun. ¶ The signes of riht assencioun ben  
 fro the heued of cancer to þe [ende] of sagittare; ¶ & thise signes  
 arisen more vpriht, & they ben called eke souereyn signes; ¶ &  
 24 euerich of hem ariseth in mor space than in to howres. ¶ Of which

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labe, on as large a scale as is convenient. It is done by observing where the ends of the given sign, estimated along the *outer* rim of the zodiacal circle in fig. 2, cross the *horizon obliquus* as the *rete* is turned about. Thus, the beginning of Aries lies on the *horizon obliquus*, and as the *rete* revolves to the right, the end of it, on the outer rim, will at last lie exactly on the same curved line. When this is the case, the *rete* ought to have moved through an angle of about 14°, as explained in § 26. By far the best way is to tabulate the results once for all, as I have there done. It is readily seen, from fig. 2, that the signs from Aries to Virgo are *northern*, and from Libra to Pisces are *southern* signs. The signs from Capricorn to Gemini are the *oblique* signs, or as Chaucer calls them, "tortuous," and ascend in less than 2 hours; whilst the *direct* signs, from Cancer to Sagittarius, take more than 2 hours to ascend; as shewn in the table in § 26. The *eastern* signs in fig. 2 are said to *obey* to the corresponding *western* ones.

signes gemini obeith to Cancer, ♈ & taurus to leo / Aries to virgo / pisces to libra, ♈ Aquarius to Scorpion, and Capricorne to Sagittare. ♈ & thus euermo 2 signes that ben illike fer fro the heued of capricorne / obeien euerich of hem til other. ♈ & for more declara- 28  
cioun, lo here the figure.

29. To knowe Iustly the 4 quarters of the world, as est, west, north, & sowth.

[Ad cognoscendum euidenter quatuor partes mundi, scilicet, orientem, austrum, aquilonem, & occidentem.]

Take the altitude of thy sonne whan the list / & note wel the quarter of the world in which the sonne is for the tyme by the Azymutz. ♈ turne thanne thin Astrolabie / & set the degree of the sonne in the Almykanteras of his altitude on thilke side þat the 4  
sonne stant / as is the manere in takyng of howres ; ♈ & ley thy label on the degree of the sonne, And rikene how many degres of the bordure ben by-twixe the lyne Meridional & the point of thy label ; & note wel þat nowmbre. ♈ \* Turne thanne a-gayn [\* Fol. 21 v.] 8  
thyn Astralabie, & set the point of thy gret Rewle ther thow takest thyne Altitudes / vp-on as many degrees in his bordure fro his Meridional as was the point of thy label fro the lyne Meridional on the wombe-side. ♈ tak thanne thyn Astrolabie with bothe handes sadly 12  
& slely, & lat the sonne shyne thorow bothe holes of thy rewle ; ♈ & slely in thilke shynynge lat thyn Astrelabie koweh adown euene vp-on a smothe grond, & thanne wol the verrey lyne Merydional of thyn

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29. Here *both* sides of the Astrolabe are used, the "rewle" being made to revolve at the *back*, and the "label" in *front*, as usual. First, by the back of the instrument and the "rewle," take the sun's altitude. Turn the Astrolabe round, and set the sun's degree at the right altitude among the almicantaras, and then observe, by help of the label, how far the sun is from the meridian. Again turn the instrument round, and set the "rewle" as far from the meridian as the label was. Then, holding the instrument as near the ground and as horizontal as possible, let the sun shine through the holes of the "rewle," and immediately after lay the Astrolabe down, without altering the azimuthal direction of the meridional line. It is clear that this line will then point southwards, and the other points of the compass will also be known.

16 Astrolabie lye euene sowth, & the est lyne wole lie est, & the west lyne west, & north lyne north, so þat thow werke softly & avisely in the cowchyng; & thus hastow the 4 quarters of the firmament. ¶ & for the more declaracioun, lo here the figure.

30. To knowe the Altitude of planetes fro the wey of the sonne, whether so they be north or sowth fro the forseide wey.

[Ad cognoscendum altitudinem planetarum a cursu solis, utrum sint in parte australi vel boreali a cursu supra dicto.]

¶ Lok whan þat a planete is in the lyne Meridional, yif þat hir altitude be of the same heyhte þat is the degree of the sonne for þat day, & than is the planete in the verrey wey of the sonne, ¶ & hath 4 no latitude. ¶ & yif the altitude of the planete be heyere than the degree of the sonne, þan is the planete north fro the wey of the sonne swych a quantite of latitude as [shewith] by thyn Almykanteras. & 3if the altitude of the planete be lasse than the degree 8 [\* Fol. 22] of the sonne / thanne \* is the planete sowth fro the wey of the sonne swich a quantite of latitude as [shewith] by thin almykanteras; ¶ This is to seyn, fro the wey wher as the sonne wente thilke day / but nat from the wey of the sonne in euery place of the zodiak. 12 ¶ & for the more declaracioun, lo here the figure.

31. To knowe the senyth of the arysing of the sonne, this is to seyn, the partie of the Orisonte in which þat the sonne arisith.

[Ad cognoscendum signum de ortu solis, scilicet, illam partem orientis in qua oritur sol.]

¶ Thow most first considere þat the sonne ariseth nat al-wey verrey est, but some tyme by north the est, and som tyme by sowthe

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30. This turns upon the definition of the phrase "the wey of the sonne." It does not mean the zodiacal circle, but the sun's apparent path on a given day of the year. The sun's altitude changes but little in one day, and is supposed here to remain the same throughout the time that he is, on that day, visible. Thus, if the sun's altitude be  $61\frac{1}{2}^\circ$ , the way of the sun is a small circle, viz. the tropic of Cancer. If the planet be then on the zodiac, in the 1st degree of Capricorn, it is  $47^\circ$  S. from the way of the sun, and so on.



the est / Sothly the sonne ariseth neuer-mo verrey est in owere  
 Orisonte, ¶ but he be in the heued of aries or libra. now is thin 4  
 Orisonte departed in 24 parties by thi azymutz, in significacion of 24  
 partiez of the world ; al be it so þat shipmen rikne thilke partiez in  
 32 / thanne is ther no more but waite in which azymut þat thi sonne  
 entreth at [h]is arisyng / & take ther the senyth of the arising of the 8  
 sonne. ¶ the manere of the deuision of thin Astralabie is this / I  
 Mene as in this cas. ¶ First is it deuided in 4 plages principalx  
 with the lyne þat goth from est to west, ¶ & than with a-nother lyne  
 þat goth fro so[w]th to north. ¶ than is it deuided in smale partiez 12  
 of Azymutz, as est, and est by sowthe, whereas is the firste Azimut  
 aboute the est lyne ; ¶ & so forth fro partie to partie / til þat thow  
 come agayn vn-to the est lyne / thus maistow vnderstond also the  
 senyth of any sterre, in which partie he riseth, &c. ¶ & for the more 16  
 declaracion, lo here the figure.

[Fol. 22 b.] 32. To knowe in which partie of the firmament is the  
 coniunccioun.

[Ad cognoscendum in qua parte firmamenti sunt coniunctiones  
 solis & lune.]

¶ Considere the tyme of the coniunce[i]on by thy kalender / as  
 thus ; lok how many howres thilke coniunccion is fro the Midday of

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31. The word "senyth" is here used in a peculiar sense ; it does not mean, as it should, the *zenith* point, or point directly overhead, but is made to imply the point on the horizon, (either falling upon an azimuthal line, or lying between two azimuths), which denotes the point of sunrise. In the Latin rubric, it is called *signum*. This point is found by actual observation of the sun at the time of rising. Chaucer's azimuths divide the horizon into 24 parts ; but it is interesting to observe his remark, that "shipmen" divide the horizon into 32 parts, exactly as a compass is divided now-a-days. The reason for the division into 32 parts is obviously because this is the easiest way of reckoning the direction of the wind. For this purpose, the horizon is first divided into 4 parts ; each of these is halved, and each half-part is halved again. It is easy to observe if the wind lies half-way between S. and E., or half-way between S. and S.E., or again half-way between S. and S.S.E. ; but the division into 24 parts would be unsuitable, because *third-parts* are much more difficult to estimate.



the day preecedent, as shewith by the canoun of thi kalender; ¶ rikne  
 4 thanne thilke nombre of howres in the bordure of thyn Astralabic /  
 as thow art wont to do in knowyng of the howres of the day or of  
 the nyht; ¶ & ley thy label ouer the degree of the sonne; ¶ &  
 thanne wol the point of thy label sitte vp-on the hour of the con-  
 8 iunccion. ¶ loke thanne in which Azymut the degree of thy sonne  
 sittith, & in that partie of the firmament is the coniunccion. ¶ &  
 for the more declaracioun, lo here thy figure.

[Fol. 23] **33. To knowe the senyth of the Altitude of the sonne, &c.**

[Ad cognoscendum signa de altitudine solis.]

This is no mor to seyn but any tyme of the day tak the altitude  
 of the sonne, & by the Azymut in which he stondith, ¶ Maistou  
 sen in which partie of the firmament he is ¶ & [in] the same wyse  
 4 maistou sen, by the nyht, of any sterre, wheither the sterre sitte est  
 or west or north, or any partie by-twene, aftur the name of the  
 Azimut in which is the sterre. ¶ & for the more declaracioun, lo  
 here the figure.

**34. To knowe sothly the degree of the longitude of the mone,  
 or of any planet pat hath no latitude for the tyme fro the  
 Ecliptik lyne.**

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**32.** The Latin rubric interprets the conjunction to mean that of the  
 sun and moon. The time of this conjunction is to be ascertained from  
 a calendar. If, e.g. the calendar indicates 9 A.M. as the time of con-  
 junction on the 12th day of March, when the sun is in the first point of  
 Aries, as in § 3, the number of hours after the preceding midday is 21,  
 which answers to the letter X in the border (fig. 2). Turn the *rete* till  
 the first point of Aries lies under the label, which is made to point to X,  
 and the label shews at the same moment that the degree of the sun is  
 very nearly at the point where the equinoctial circle crosses the azi-  
 muthal circle which lies 50° to the E. of the meridian. Hence the con-  
 junction takes place at a point of which the azimuth is 50° to the E. of  
 the S. point, or 5° to the eastward of the S.E. point. The proposition  
 merely amounts to finding the sun's azimuth at a given time.

**33.** Here "senyth" is again used to mean azimuth, and the pro-  
 position is, to find the sun's azimuth by taking his altitude, and setting  
 his degree at the right altitude on the almicanteras. Of course the two  
 co-ordinates, altitude and azimuth, readily indicate the sun's exact posi-  
 tion; and the same for any star or planet.

[Ad cognoscendum veraciter gradum de longitudine lune, vel alicuius planete qui non habet longitudinem pro tempore causante (*sic*) linea ecliptica.]

¶ Tak the altitude of the mone, & rikne thin altitude vp among thyne Almykanteras on which side that the Mone stande, & set there a prikke. ¶ Tak thenne anon riht, vp-on the mones side, the Altitude of any sterre fix which þat thou knowest, & set his Centre vp-on his altitude Among thin Almykanteras ther the sterre is fownde. ¶ Waite thanne which degree of the zodiak [towchith] the prikke of the altitude of the mone, & tak ther the degree in which the mone standith. ¶ this conclusioun is verrey soth, yif the sterres in thin Astrolabie stonden aftur \*the trowthe ; of comune, tretis of [\* Fol. 23 b.] Astralabie ne make non excepcioun wheyth[er] the mone haue latitude, or non / ne on wheither side of the mone the Altitude of the sterre fix be taken. ¶ And nota, þat yif the Mone [shewe] himself by liht of day, than maistow wyrke this same conclusioun by the sonne, as wel as by the fix sterre. ¶ & for the more declaracioun, lo here thy figure.

35. This is the workinge of the conclusioun, to knowe yif þat any planete be directe or retrograde.

[Hec conclusio operatur ad cognoscendum si aliqua planeta sit directa uel retrograda.]

¶ Tak the altitude of any sterre þat is cleped a planete, ¶ & note it wel. ¶ & tak ek anon the altitude of any sterre fix that thou

34. The moon's latitude is never more than  $5\frac{1}{4}^{\circ}$  from the ecliptic, and this small distance is, "in common treatises of Astrolabie," altogether neglected; so that it is supposed to move in the ecliptic. First, then, take the moon's altitude, say  $30^{\circ}$ . Next take the altitude of some bright star "on the moon's side," i. e. nearly in the same azimuth as the moon, taking care to choose a star which is represented upon the *Rete* by a pointed tongue. Bring this tongue's point to the right altitude among the almicanteras, and then see which degree of the ecliptic lies on the almicantera which denotes an altitude of  $30^{\circ}$ . This will give the moon's place, "if the stars in the Astrolabe be set after the truth," i. e. if the point of the tongue is exactly where it should be.

35. The motion of a planet is called *direct*, when it moves in the

knowest, & note it wel also. ¶ Come thanne agayn the thridde or  
 4 the ferthe nyht next folwyng; for thanne shaltow aperceyue wel the  
 Moeyng of a planete, wheither so he Moeue forthward or bakward.  
 ¶ Awaite wel thanne w[h]an þat thi sterre fix is in the same altitude  
 þat she was w[h]an thow toke hir firste altitude; ¶ and tak than eft-  
 8 sones the Altitude of the forseide planete, & note it wel. ¶ for trust  
 wel, yif so be þat the planete be on the riht side of the Meridional  
 lyne, so þat his seconde altitude be lasse than [h]is firste altitude was,  
 thanne is the planete directe. ¶ And yif he be on the west side in  
 12 that condicion / thanne is he retrograd. ¶ And yif so be þat this  
 [\* Fol. 24] planete be vp-on the Est side whan [h]is altitude is \* taken, so  
 þat his secounde altitude be more than [h]is firste altitude, thanne is  
 he retrograde, & yif he be on the west side, than is he directe. ¶ but  
 16 the contrarie of this parties is of the cours of the Moone; for  
 [sothly] the Moone Moenyth the contrarie from othere planetes as in  
 hire Episicle, but in non other manere. ¶ & for the more declara-  
 cioun, lo here thi figure.

### 36. The conclusiouns of equaciouns of howses, after the astralal- bie, &c.

#### [Conclusio de equacione domorum.]

Set the by-gynnyng of the degree þat assendith vp-on the enle of  
 the 8 howre inequal; thanne wol the by-gynnyng of the 2 hows  
 sitte vp-on the lyne of Midnyht. ¶ rem[e]ue thanne the degree þat  
 4 assendith, & set him on the ende of the 10 howr inequal; & thanne

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direction of the succession of the zodiacal signs; *retrograde*, when in the contrary direction. When a planet is on the right or east side of the Meridional line, and is moving forward along the signs, without increase of declination, its altitude will be less on the second occasion than on the first at the moment when the altitude of the fixed star is the same as before. The same is true if the planet be retrograde, and on the western side. The contrary results occur when the second altitude is greater than the first. But the great defect of this method is that it may be rendered fallacious by a change in the planet's declination.

36. See fig. 14, Plate VI. If the equinoctial circle in this figure be supposed to be superposed upon that in fig. 5, Plate III, and be further supposed to revolve backwards through an angle of about 60° till the point

wol the by-gynnyng of the 3 howis sitte vp-on the Midnyht lyne. ¶ bryng vp agayn the same degree þat assendith first / & set him vp-on the Orisonte / & thanne wol the be-gynnyng of the 4 howys sitte vp-on the lyne of Midnyht. ¶ tak thanne the nadir of the 8 degree þat first Assendith / & set him on the ende of the 2 howre inequal / & thanne wol the by-gynnyng of the 5 howys sitte vp-on the lyne of Midnyth ; set thanne the nadir of the assendent on the ende of the 4 howre, þan wol the bygynnyng of the 6 house sitte on 12 the Midnyht lyne. ¶ þe bygynnyng of the 7 hows is nadir of the Assendent / & the bygynnyng of the 8 hows is nadir of the 2 ; & þe by-gynnyng of the 9 hous is nadir of the 3 ; & þe by-gynnyng of þe 10 hows is the nadir of the 4 ; & þe bygynnyng of the 11 howys is 16 nader of the 5 ; & the bygynnyng of the 12 hows is nadir of the 6. ¶ & for the more declaracion, lo here the figure.

[Fol. 24 b.] 37. A-nother manere of equaciouns of howses by the Astrelabie.

[De aliqua forma equacionis domorum secundum astrolabium.]

¶ Tak thin assendent, & thanne hastow thi 4 Angles; for wel thow most þat the opposit of thin assendent, þat is to seyn, thy by-gynnyng of the 7 howis, sit vp-on the west orizonte ; ¶ & the bygynnyng of the 10 howis sit vp-on the lyne Meridional ; ¶ & his 4 opposit vp-on the lyne of Mydnyht. ¶ Thanne ley thi label ouer

1 (fig. 14) rests upon the point where the 8th hour-line crosses the equinoctial, the beginning of the 2nd house will then be found to be on the line of midnight. Similarly, all the other results mentioned follow. For it is easily seen that each "house" occupies a space equal to 2 hours, so that the bringing of the 3rd house to the midnight line brings 1 to the 10th hour-line, and a similar placing of the 4th house brings 1 to the 12th hour-line, which is the *horizon obliquus* itself. Moving onward 2 more hours, the point 7 (the nadir of 1) comes to the end of the 2nd hour, whilst the 5th house comes to the north; and lastly, when 7 is at the end of the 4th hour, the 6th house is so placed. To find the nadir of a house, we have only to add 6; so that the 7th, 8th, 9th, 10th, 11th, and 12th houses are the nadirs of the 1st, 2nd, 3rd, 4th, 5th, and 6th houses respectively.

37. Again see fig. 14, Plate VI. Here the 10th house is at once seen to be on the meridional line. In the quadrant from 1 to 10, the

the degree þat assendet[h] / & rekne fro the point of thy label alle the degrees in the bordure, til thou come to the Meridional lyne / & 8 departe alle thilke degrees in 3 euene parties, & take the euene equacion of 3 ; for ley thy label ouer euerych of 3 parties, & [than] maistow se by thy label in which degree of the zodiak [is] the by-gynnyng of euerych of thise same howses fro the assendent / þat is to 12 seyn, the begynnyng of the [12] howse nex[t] aboute thin assendent / And [thanne] the begynnyng of the 11 howse, & thanne the 10 vp-on the Meridional lyne / as I first seide. ¶ The same wyse wyrke thou fro the assendent down to the lyne of Mydnyht / & thanne 16 thus hastow other 3 howses, þat is to seyn, the bygynnyng of the 2 & the 3 And the 4 howses ; thanne is [the] nader of thise 3 howsez the by-gynnyng of the 3 howses þat folwen. ¶ & for the more declaracioun, lo here thi figure.

[Fol. 25] **38. To fynde the lyne Merydional to dwelle fix in any certein place.**

[Ad inueniendum lineam meridianalem per subtiles operaciones.]

Tak a rond plate of metal, for [warpyng] the brodere the better ; ¶ & make ther-vpon [a] Iust *compas*, a lite with-in the bordure / & ley this ronde plate vp-on an euene grond or on a[n] euene ston or on 4 a[n] euene stok fix in the gronde / & ley it euen bi a leuel ¶ & in centre of the *compas* stike an euene pyn or a whir vp-riht / the smallere þe betere ¶ set thy pyn by a plom-rewle euene vpryht ¶ & let this pyn be no lengere than a quarter of the diametre of thi *compas*, fro the 8 centre. ¶ & waite bisily aboute 10 or 11 of the klokke, & whan the

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even division of the quadrant into 3 parts shews the 12th and 11th houses. Working downwards from 1, we get the 2nd and 3rd houses, and the 4th house beginning with the north line. The rest are easily found from their nadirs.

**38.** This problem is discussed in arts. 144 and 145 of Hymer's *Astronomy*, 2nd ed. 1840, p. 84. The words "for warpyng" mean "to prevent the errors which may arise from the plate becoming warped." The "broader" of course means "the larger." See fig. 15, Plate VI. If the shadow of the sun be observed at a time *before* midday when its extremity just enters within the circle, and again at a time *after* midday

sonne shynyth, whan the shadwe of the pyn entreth any-thing  
*with-in* the cercle of thi plate an her-mele, ¶ & mark ther a prikke  
*with inke*. Abide thanne stille waityng on the sonne aftur 1 of the  
 klokke, til that the schadwe of the wyr or of the pyn passe ony-thing 12  
 owt of the cercle of the *compas*, be it neuer so lite / & set ther  
 a-nother prikke of ynke. ¶ take than a *compas*, and mesure euene  
 the Middel by-twixe bothe prikkes, & set þer a prikke. ¶ take  
 thanne a rewle / & draw a strike, euene alyne fro the pyn vn-to the 16  
 Middel prikke; ¶ & tak ther thy lyne Meridional for euere-mo, as in  
 that same place. ¶ & yif thou drawe a cros-lyne ouer-thwart the  
*compas* Iustly ouer the lyne Meridional, than hastow est and west  
 & sowth / &, *par* consequence, than the nader of the sowth lyne is 20  
 the north lyne. ¶ & for more declaracioun, lo here thi figure.

[Fol. 25 b.] 39. Descripcion of the Meridional lyne, of longitudes, &  
 latitudes of Citees and townes from on to a-no[t]her of clymatz.

This lyne Meridional ys but a *Maner* descripcion [of lyne]  
 ymagined, that passeth vpon the pooles of pis world And by the  
 cenyth of owre heued / And hit is [ycleped the] lyne Meridional / for  
 in what place þat any maner man [ys at] any tyme of the yer / whan 4  
 that the sonne [by moeyung] of the firmament cometh to his verrey  
 [meridian] place / than is hit verrey Midday, þat we clepen owre  
 noon, ¶ As to thilke man; ¶ And therefore ys it clepid þe lyne of

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when it is just passing beyond the circle, the altitude of the sun at these two observations must be the same, and the south-line must lie half-way between the two shadows. In the figure, S and S' are the 2 positions of the sun, OT the rod, Ot and Ot' the shadows, and OR the direction of the south line. Ott' is the metal disc.

39. This begins with an explanation of the terms "meridian" and "longitude." "They chaungen here Almikanteras" means that they differ in latitude. But, when Chaucer speaks of the longitude and latitude of a "climate," he means the length and breadth of it. A "climate" (*clima*) is a belt of the earth included between two fixed parallels of latitude. The ancients reckoned *seven* climates; in the sixteenth century there were *nine*. The "latitude of the climate" is the breadth of this belt; the "longitude" of it he seems to consider as measured along lines lying equidistant between the parallels of latitude of



8 Midday. ¶ And nota, for euermo, of [2 citees] or of 2 Townes, of  
 whiche þat o town aprochith [more] towarde the Est þan doth þat  
 other town, ¶ Truste wel that thylke townes han diuerse Meridians.  
 ¶ Nota also, that the Arch of the Equinoxial that is [conteyned] or  
 12 boundd by-twyxe the 2 Meridians ys cleped þe longitude of the  
 town. ¶ And [yf] so be þat two townes hane illike Meridian, or on  
 Meridian, ¶ Than is the distance of hem bothe ylike fer fro the Est /  
 & the *contrarie*. And in this Manere they chaunge nat her Meridian,  
 16 ¶ But sothly they chaungen here Almikanteras, For the enhausyng  
 of the pool and the distance of the sonne. ¶ The longitude of a  
 climat ys a lyne ymagined fro Est to west, illike distant by-twene  
 them alle. ¶ þe latitude of a climat is a lyne ymagined from north  
 20 [\* Fol. 26] to south þe space of the erthe, fro the byginnyng \* of the firste  
 climat vnto to the verrey ende of the [same] climat, euene directe  
 agayns [þe poole Artik.] ¶ Thus seyn some Auctours / And somme  
 of hem seyn þat yif men clepen þe latitude, thay mene the arch meri-  
 24 dian þat is contiened or [inter]cept by-twix the cenyth and the  
 equinoxial. Thanne sey þey that the distaunce fro the equinoxial  
 vnto þe ende of a climat, euene agayns þe pool artyk, ys the latitude  
 of a climat for sothe. ¶ & for more declaracioun, lo here thi figure.

the places from which the climates are named. See Stöffler, fol. 20 *b.* ;  
 and Petri Apiani Cosmographia, per Gemmam Phrysium restituta, ed.  
 1574, fol. 7 *b.* The seven climates were as follows :—

1. That whose central line passes through Meroë (lat. 17°); from  
 nearly 13° to nearly 20°.

2. Central line, through Syene (lat. 24°); from 20° to 27°, nearly.

3. Central line through Alexandria (lat. 31°); from 27° to 34°, nearly.

4. Central line through Rhodes (lat. 36°); from 34° to 39°, nearly.

5. Central line through Rome (lat. 41°); from 39° to 43°, nearly.

6. Central line through Borysthenes (lat. 45°); from 43° to 47°.

7. Through the Riphæan mountains (lat. 48°); from 47° to 50°. But  
 Chaucer must have included an *eighth* climate (called *ultra Maotides  
 paludes*) from 50° to 56°; and a *ninth*, from 56° to the pole. The part of  
 the earth to the north of the 7th climate was considered by the ancients  
 to be uninhabitable. A rough drawing of these climates is given in  
 MS. Camb. Univ. Lib. II. 3. 3, fol. 33 *b.*

40. To knowe with which degree of the zodiak þat any planete Assendith on the Orisonte, wheyther so that his latitude be north or sowth.

¶ Knowe be thin almenak the degree of the Ecliptik of any signe in which þat the planete is rekned for to be / & that is eleped the degree of his longitude ; & knowe Also the degree of his latitude fro the Ecliptik, north or sowth. ¶ And by this samples 4 folwyng in special / maistow wyrke for [sothe] in euery signe of the zodiak. the degree of [longitude] par auenture, of venus or of another planete was 6 of Capricorne, & the latitude of him was northward 2 degrees fro the Ecliptik lyne. I tok a subtil compas, 8 & eleped þat on poynt of my compas A, & þat other poynt F. ¶ Than [tok] I the point of A, & set it in [the] Ecliptik line euene in my zodiak, in the degree of the longitude of venus / þat is to seyn, in the 6 degree of Capricorne ¶ & thanne set I the point of F vpward 12 in the same \*signe, bycause þat the latitude was north, vp-on [\* Fol. 26 b ] the latitude of venus, that is to seyn, in the 6 degree fro the heued of capricorne ; & thus hauy 2 degrees by-twixe my to prikked ; than leide I down softly my compas, ¶ & sette the degree of the longi- 16 tude vp-on the Orisonte / tho tok I & wexede my label in Maner of a peyre tables to resceyue distyngctly the prikked of my compas. ¶ Tho tok I this forseide label, & leide it fix ouer the degree of my longitude / tho tok I vp my compas, ¶ & sette the point of A in the 20 wex on my label, as euene as y kowde gesse ouer the Ecliptik lyne, in the ende of [the] longitude / & sette the point of F endlang in my label vp-on the space of the latitude, inwarde & ouer the zodiak, that

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40. The longitude and latitude of a planet being ascertained from an almanac, we can find with what degree it ascends. For example, given that the longitude of Venus is 6° of Capricorn, and her N. latitude 2°. Set the one leg of a compass upon the degree of longitude, and extend the other till the distance between the two legs is 2° of latitude, from that point inward, i. e. northward. The 6th degree of Capricorn is now to be set on the horizon, the label (slightly coated with wax) to be made to point to the same degree, and the north latitude is set off upon the

24 is to seyn, north-ward fro the Ecliptik // than leide I down my compass & lokede wel in the wey vpon the prikke of A & of F; tho turned I my Riet til þat the prikke of F sat vp-on the Orisonte / than saw I wel þat the body of venus, in hir latitude of [2] degrees  
 28 septentrionalis, assendid, in the ende of the 6 degree, in the heued of capricorne. ¶ And nota, þat in the same maner maistow wyrke with any latitude septentrional [in alle] signes; but sothly the latitude Meridional of a planete in Capricorne may not be take, by  
 32 cause of the litel space by-twixe the Ecliptik / & the bordure of the Astrelabie; but sothly, in alle other [signes] it May.

[Fol. 27] ¶ Also the degree, *par auenture*, of Iuppiter or of a-nother planete, was in the furst degree of pisces in longitude / & his latitude was 3 degrees Meridional; tho tok I the point of A / & set it in the firste degree of pisces on the Ecliptik / & thanne set I the point of F downward in the same signe, by cause þat the latitude was south 3 degrees / þat is to seyn, fro the heued of pisces / & thus haue  
 40 3 degrees by-twixe bothe prikkes; thanne sette I the degree of the longitude vp-on the Orisonte; tho tok I my label / & leide it fix vp-on the degree of the longitude; tho sette I the point of A on my label, euene ouer the Ecliptik lyne in the ende euene of the degree of  
 44 the longitude / & set the point of [F endlang] in my label the space [of] 3 [degrees] of the latitude fro the zodiak, this is to seyn, southward fro the Ecliptik, toward the bordure; and turned my

wax by help of the compass. The spot thus marking the planet's position is, by a very slight movement of the *Rete*, to be brought upon the horizon, and it will be found that the planet (situated 2° N. of the 6th degree) ascends together with the *head* (or beginning of the sign) of Capricorn. This result, which is not *quite* exact, is easily tested by a globe. When the latitude of the planet is *south*, its place cannot well be found when in Capricorn, for want of space at the edge of the Astrolabe.

As a second example, it will be found that, when Jupiter's longitude is at the *end* of 1° of Pisces, and his latitude 3° south, he ascends together with the 14th of Pisces, nearly. This is easily verified by a globe, which solves all such problems very readily.

It is a singular fact that most of the best MSS. leave off at the word "howre," leaving the last sentence incomplete. For the last five words—"þou shalt do wel ynow"—which I quote from the MS. in St. John's College, Cambridge, see p. 52.

Riet [til] the prikke of F sat vp-on the Orisonte ; thanne [saw] I wel  
pat the body of Iuppiter, in his latitude of 3 degrees Meridional, 48  
ascendit with 14 degrees of pisces *in horoscopo* / & in this Maner  
maistow wyrke with any latitude Meridional, as I first seide, saue in  
Capricorne / And yif thou wolt pleie this craft with the arisyng of  
the Mone, loke thou rekne wel her cours howre by howre ; for she ne 52  
dwellith nat in a degree of [hire] longitude but [a] litel while, as thou  
wel knowest / but natheles, yif thou rekne hir verreye Moeuyng by  
thy tables howre after howre—

**Explicit tractatus de Conclusionibus Astrolabii compilatus per  
Galfridum Chauciers ad Filium suum Lodewicum scolarem tunc  
temporis Oxonie ac sub tutela illius nobilissimi Philosophi  
Magistri N. Strode, &c.**

—[þou shalt do wel ynow.

\* \* \* \*

#### 41. Vmbra Recta.

[\* Fol. 32] 3if it so be þat þou wylt werke be *vmbra* \**recta*, & þou may come to þe bas of þe towre, in þis maner þou schalt werke. Tak þe altitude of þe *tour* be boþe holes, so þat þi rewle ligge euyn in a 4 poynt. Ensamþle as þus : y see hym þorw at þe poynt of 4 ; þan mete y þe space be-twen me & þe *tour*, & y fynde yt 20 feet ; þan be-holde y how 4 ys to 12, riȝt so is the space be[-tween] þe & þe *tour* to þe altitude of þe *tour*. [For] 4 is þe [þ]ridde part of 12, so is þe 8 space be-twen þe & þe *tour* þe þridde part of þe altitude of þe *tour* ; þan þries 20 feet ys þe heyȝte of þe *tour*, wiþ addyng of þyn owne persone to þyn eye ; & þis rewle is so general in *vmbra recta*, fro þe poyn[t] of oon to 12. And ȝif þi rewle falle vppon 5, þan is 5 12-partyes of þe heyȝt þe space be-twen þe & þe towre ; wyþ addyng of þyn owne heyȝth.

#### 42. Vmbra Versa.

Anoþer maner of werkynge, be *vmbra versa*. 3if so be þat þou may nat come to þe bas of þe *tour*, y [see] hym þorw þe nombre of 1 ; y [\* Fol. 32 b.] sette þer a prikke \*at my foote ; þan goo [y] ner to þe *tour*, 4 & y see hym þorw at þe poynt of 2, & þere y sette a-noþer prikke ; &

41. Sections 41—43 and 41a—42b are from the MS. in St John's College, Cambridge. For the scale of *umbra recta*, see fig. 1, Plate I. Observe that the *umbra recta* is used where the angle of elevation of an object is greater than 45°; the *umbra versa*, where it is less. See also fig. 16, Plate VI ; where, if AC be the height of the tower, BC the same height *minus* the height of the observer's eye (supposed to be placed at E), and EB the distance of the observer from the tower, then  $bc : Eb :: EB : BC$ . But  $Eb$  is reckoned as 12, and if  $bc$  be 4, we find that BC is 3 EB, i. e. 60 feet, when EB is 20. Hence AC is 60 feet, *plus* the height of the observer's eye. The last sentence is to be read thus—"And if thy 'rewle' fall upon 5, then are 5-12ths of the height equivalent to the space between thee and the tower (with addition of thine own height)." The MS. reads "5 12-partyes þe heyȝt of þe space," &c. ; but the word *of* must be transposed, in order to make sense. It is clear that, if  $bc = 5$ , then  $5 : 12 :: EB : BC$ , which is the same as saying that  $EB = \frac{5}{12} BC$ . Conversely,  $BC = \frac{12}{5} EB = 48$ , if  $EB = 20$ .

42. See fig. 1, Plate I. See also fig. 17, Plate VI. Let  $Eb = 12$ ,

y be-holde how 1 hath hym to 12, & per fynde y þat yt hath hym twelfe sithes ; þan be-holde y how 2 hath hym to 12, & þou schalt fynde it sexe syþes ; þan þou schalt fynde þat [as] 12 [above] 6 [is þe] nombre of 6, Ryȝt so is þe space be-twen þi too prikkis þe space 8 of 6 tymes þyn altitude. & note, þat at þe ferste altitude of 1, þou settest a prikke, & afterward, whan þou [seest] hym at 2, per þou settest an-øper prikke, þan þou fyndest betwen too prikkys [60] fett ; þan þou schalt fynde þat [10 is þe 6-party of 60. And þen is 12 10 fete] þe altitude of þe tour. [For] øper poyntis, ȝif yt fylle in *umbra versa*, as þus : y sette caas it fill vppon [2], & at þe secunde vppon [3] ; þan schalt þou fynde þat [2] is [6] parties of 12 ; [and 3 is 4 parties of 12] ; þan passeþ 6 4, be nombre of 2 ; so ys þe space 16 be[twen] too prikkes twyes þe heyȝte of þe tour. & ȝif þe differens were þries, þan schulde it be [þre] tymes ; & þus māyst þou werke fro 2 to 12 ; & ȝif yt \*be 4, 4 tymes ; or 5, 5 tymes, & *sic de ceteris*. [\* Fol. 33]

#### 43. Vmbra [Recta].

An øper maner of wyrkyng be *umbra [recta]*. ȝif it so be þat þou mayst nat come to þe baas of þe tour, yn þis maner þou schalt werke. Sette þi Rewle vppon [1] till þou see þe altitude, & sette at þi foot a prikke. þan sette þi Rewle vppon 2, & be-holde what ys þe diff[er]ense 4 be-twen 1 and 2, & þou shalt fynde þat it is 1. þan mete þe space be-twen too prikkes, & þat ys þe 12 partie of þe altitude of þe tour ; & ȝif þer were 2, yt were þe 6 partye ; & ȝif þer were 3, þe 4 partye, & *sic deinceps*. And note, ȝif it were 5, yt were þe 5 party of 12 ; 8 & 7, 7 party of 12 ; and note, at þe altitude of þi conclusioun, adde þe stature of þyn heythe.

\* \* \* \*

$bc = 1$  ; also  $E'b' = 12$ ,  $b'e' = 2$  ; then  $EB = 12$  BC,  $E'B = 6$  BC ; therefore  $EE' = 6$  BC. If  $EE' = 60$  feet, then  $BC = \frac{1}{6} EE' = 10$  feet. To get the whole height, add the height of the eye. The last part of the article, beginning "For øper poyntis," is altogether corrupt in the MS.

43. Here *versa* (in the MS.) is certainly miswritten for *recta*. See fig. 18, Plate VI. Here  $Eb = E'b' = 12$  ;  $b'e' = 1$ ,  $bc = 2$ . Hence  $E'B = \frac{1}{2} BC$ ,  $EB = \frac{2}{3} BC$ , whence  $EE' = \frac{1}{3} BC$ . Or again, if  $bc$  become  $= 3, 4, 5$ , &c., successively, whilst  $b'e'$  remains  $= 1$ , then  $EE'$  is successively  $= \frac{2}{3}$  or  $\frac{1}{6}$ ,  $\frac{3}{4}$  or  $\frac{1}{4}$ ,  $\frac{5}{6}$ , &c. Afterwards, add in the height of E.



44. Another maner conclusion, to knowe the mene mote & þe argumentis of any planete. To know the mene mote & the argumentis of euery planete fro 3ere to 3ere, from day to day, from owre to owre, And from smale fraccionis infinite.

[Ad cognoscendum medios motus & argumenta de hora in horam cuiuslibet planete, de anno in annum, de die in diem.]

[\* Fol. 106] In this maner shalt þou worche: consider thyrote first, \*the wyche is made the begynning of the tabelis fro the 3ere of owre lord 1397, & entere hit in-to thy slate for the laste merydye of December; 4 and þan consider þe 3ere of owre lord, what is þe date, & be-hold wheþer thy date be more or lasse þan þe 3ere 1397. And yf hit so be þat hit be more, loke how many [3eris] hit passith, & with so many entere into thy tabelis in þe first lyne þer as is wreten *anni collecti* 8 & *expansi*. And loke [where] the same planet is wreten in the hede of thy tabele, and than [loke] what þou findest in directe of the same 3ere of owre lord wyche is passid, be hit 8, or 9, or 10, [or what nombre þat euere it be, tyl þe tyme þat þou come to 20, or] 40, or 60. 12 And that þou fyndest in directe [wryte] in thy slate vnder thy rote, & adde hit [to-geder], and þat is thy mene mote, for the laste meridian of the december, for the same 3ere wyche þat þou [hast] purposid. And yf hit so be [þat] hit passe 20, consider welle þat fro 16 [1] to 20 ben *anni expansi*, And fro 20 to 3000 ben *anni collecti*; and yf thy nombere passe 20, þan take þat þou findest in directe of 20, & yf hit be more, as 6 or 18, than take þat þou findist in directe there-of, that is to sayen, signes, degreis, Minutes, & secundis, and 20 adde [to-gedere] vn-to thy rote; and thus to make rotes; and note,

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44. Sections 44 and 45 are from MS. Digby 72. This long explanation of the method of finding a planet's place depends upon the tables which were constructed for that purpose from observation. The general idea is this. The figures shewing a planet's position for the last day of December, 1397, give what is called the *root*, and afford us, in fact, a *starting-point* from which to measure. An "argument" is the angle upon which the tabulated quantity depends; for example, a very important "argument" is the planet's *longitude*, upon which its *declination* may be made to depend, so as to admit of tabulation. The planet's declination for the given above-mentioned date being taken as the *root*, the planet's declination at a second date can be found from the

þat yf hit \*so be [þat] the 3ere of ovre lord be [lasse] than [\* Fol. 106 b.] the rote, wyche is the 3ere of ovre lord 1397, than shalt þou write in the same wyse furst thy rote in thy slate, and after entere in-to thy table in the same 3ere [þat] be lasse, as I tau3th be-fore; and þan consider how 24 many signes, degrees, Minutes, & secundis thyne entrynge conteynith. And so be that [þer] be 2 entres, than adde hem togeder, & after with-drawe hem from the rote, the 3ere of ovre lord 1397; and the residue þat lewyth is thy mene mote fro the laste mer[y]die of 28 December, the wyche þou haste purposid; and yf hit so be þat þou wolt weten thy mene mote [for] eny day, or [for] ony fraccion of day, in þis maner þou shalt worche. make thy rote fro the laste day of Decembere in þe maner as I thazthe, and afterward behold how many 32 monythis, dayes, & howris ben passid from [þe] merydye of Decembere & with that entere [with þe] laste moneth þat is ful passid, and take þat þou findest in directe of hym, & wryte hit in thy slate; & entere with as mony dayes as be more, and wryte þat þou findest in 36 directe of the same planete þat þou worchyst fore; and in þe same wyse in-to þe table of howris, for hovris þat ben passid, and adde alle these to thy rote; and the \*residue is the mene mote for [\* Fol. 107] the same day & þe same hovre.

40

#### 45. Another manere to knowe the mene mote.

Whan þou wolte make the mene mote of eny planete to be by arsechieles tables, take thy rote, the wyche is for the 3ere of ovre lord 1397; and yf so be that thy 3ere be passid the date, wryte that date / and than write that nombere of the 3eris. þan wyth-drawe þe 4 3eris oute of the 3eris that ben passid that rote. Ensampulle as thus: the 3ere of ovre lord 1400, I-wryton precise, my rote; þan wrote I

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tables. If this second date be less than 20 years afterwards, the increase of motion is set down separately for each year, viz. so much in 1 year, so much in 2 years, and so on. These separate years are called *anni expansi*. But when the increase during a large round number of years (such as 20, 40, or 60 years at once) is allowed for, such years are called *anni collecti*. For example, a period of 27 years includes 20 years *taken together*, and 7 separate or *expanse* years. The mean motion during smaller periods of time, such as months, days, and hours, is added on afterwards.

45. Here the author enters a little more into particulars. If the mean

8 first 1400. And vnder that nombre I wrote a 1397 ; þan with-  
 drowe I the laste nombre owte of þat, and þan fond I þe residue was  
 3 3ere ; I wyst þat 3 3ere was passid fro the rote, þe wyche was  
 writen in my tabelis. Than after-ward soȝth I in my tabelis þe *annis*  
*collectis & expansis*, & amonge myne expanse 3eris fond I 3 3ere. þan  
 12 toke I alle þe signes, degreis, & minutes, þat I fond directe vnder þe  
 same planete þat I wroȝth fore, & wrote so many signes, degreis, &  
 Minutes in my slate, & after-ward added I too signes, degreis,  
 Minutes, & Secundis, þe wiche I fond in my rote the 3ere of owre  
 16 lord 1397 ; And kepte the residue ; & þan had I the mene mote for  
 þe laste day of Decembere. And yf þou woldest wete þe mene mote of  
 any planete in March, Aprile, or may, oþer in any oþer tyme or monyth  
 [\* Fol. 107 b.] of the 3ere, loke how many monethes & dayes \*ben passid  
 20 from þe laste day of Decembere, the 3ere of owre lord 1400 ; and soe  
 with monithis & dayes entere in-to þy table þer þou findist thy mene  
 mote I-wreten in monethis & dayes, and take alle þe signes, degrees,  
 Minutes, & secundis þat þou findest I-wrete in directe of thy monethis,  
 24 and [adde] to signes, degreis, Minutes, & secundis þat þou findest with  
 thy rote þe 3ere of owre lord 1400, and the residue þat lenyth is þe  
 mene mote for that same day. And note yf hit so be that þou woldest  
 [wete þe] mene mote in any 3ere þat is lasse þan thy rote, with-drawe  
 28 þe nombre of so many 3eris as hit is lasse þan þe 3ere of owre lord a  
 1397, & kepe þe residue ; & so many 3eris, monythis, & dayes entere  
 in-to thy tabelis of thy mene mote. And take alle the signes,  
 degreis, and Minutes, [and] Secundis, þat þou findest in directe of alle  
 32 þe 3eris, monythis, & dayes, & wryte hem in þy slate ; and abowe  
 þilke nombre write þe signes, degreis, Minutes, & secundis, þe wyche  
 þou findest with thy rote þe 3ere of owre lord a 1397 ; & with-drawe  
 alle þe nethere signis & degreis fro þe signes & degrees, Minutes, &  
 36 Secundis of oþer signes with thy rote, and thy residue þat lewyth is  
 thy mene mote for þat day.

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motion be required for the year 1400, 3 years later than the starting-  
 point, look for 3 in the table of expanse years, and add the result to the  
 number already corresponding to the "root," which is calculated for the  
 last day of December, 1397. Allow for months and days afterwards. For  
 a date earlier than 1397 the process is just reversed, involving subtraction  
 instead of addition.

\* \* \* \*

## 41a. Vmbra Recta.

[Fol. 31 b.] 3if þi rewle falle vppon þe 8 poynt on riȝt schadwe, þan make þi figure of 8; þan loke how moche space of feet ys be-twen þe & þe tour, & multiplie þat be 12, & whan þou [hast] multiplied it, þan diuide yt be þe same nombre of 8, & kepe þe residue, & adde þerto 4 vp to þyn eye to þe residue, & þat schal be þe verry heyȝt of þe tour. & þus mayst þou werke on þe same wyse, fro 1 to 12.

## 41b. Vmbra Recta.

An-oþer maner of werkyng vppon þe same syde. Loke vppon whych poynt þi Rewle falliþ whan þou seest þe top of þe tour þorow too litil holes, & mete þan þe space fro þi foot to þe baas of þe tour; & ryȝt \*as the nombre of þy poynt hath hym-self to 12, ryȝt so [\* Fol. 36] 4 þe mesure be-twen þe & þe tour haþ hym-self to þe heiȝte of þe same tour. Ensamþle: y sette caas þi rewle falle vpon 8, þan ys 8 to-þridd partyes of 12; so þe space ys þe too-þridd partyes of þe tour.

## 42a. Vmbra Versa.

To knowe þe [heyth by þy] poyntes of *vmbra versa*. 3if þy rewle falle vppon 3, whan þou seest þe top of þe tour / sett a prikke þer-as þi foot stont; & goo ner tyl þou mayst see þe same top at þe poynt of 4, & sette þer an-oþer lyk prikke / þan mete how many foot 4 ben be-twen þe too prikkis, & adde þe lengþe vp to þyn eye þer-to; & þat schal be þe heyȝte of þe tour. And note, þat 3 ys fourþe party of 12, & 4 is þe þridde party of 12. Now passeþ 4 þe nombre of 3 be þe distaunce of 1; þerfore þe same space, wyþ þyn heyȝt to 8

41a. This comes to precisely the same as Art. 41, but is expressed with a slight difference. See fig. 16, where, if  $bc = 8$ , then  $BC = \frac{1}{8} EB$ .

41b. Merely another repetition of Art. 41. It is hard to see why it should be thus repeated in almost the same words. If  $bc = 8$  in fig. 16, then  $EB = \frac{8}{12} BC = \frac{2}{3} BC$ . The only difference is that it inverts the equation in the last article.

42a. This is only a particular case of Art. 42. If we can get  $bc = 3$ , and  $b'e' = 4$ , the equations become  $EB = 4 BC$ ,  $E'B = 3 BC$ ; whence  $EE' = BC$ , a very convenient result. See fig. 17.

pyn eye, ys þe hey3t of þe tour. & 3if it so be þat þer be 2 or 3 distaunce in þe nombres, so schulde þe mesures be-twen þe prikkes be twyes or þries þe hey3te of þe tour.

**43a. Ad cognoscendum altitudinem alicuius rei per vmbram [rectam].**

[Fol. 36 b.] To knowe þe hey3te of þynges, 3if þou mayst [nat] come to þe bas of a þyng. sette þy rewle vppon what þou wylt, so þat þou may see þe topp of þe þyng þorw þe too holes, & make a marke  
 4 þer þy foot standeþ; and goo neer or forþer / till þou mayst see þorw anoper poynt, & marke þer a-noþer marke; & loke þan what ys þe differense be-twen þe too poyntes in þe scale; & rízt as þat difference haþ hym to 12, rízt so þe space be-twen þe & þe too markys haþ hym  
 8 to þe hey3te of þe þyng. Ensampl: y set caas þou seest it þorw a poynt of 4; aftyr, at þe poynt of 3. Now passíþ þe nombre of 4 þe nombre of 3 be þe difference of 1, and rízt as þis difference 1 haþ hym-self to 12, rízt so þe mesure be-twen þe too markis haþ hym to  
 12 þe hey3te of þe þyng, puttyng to þe hey3te of þi-self to þyn eye; & þus mayst þou werke fro 1 to 12.

**42b. Per vmbram versam.**

Furþermore, 3if þou wilt knowe in *umbra versa* / be þe craft of *umbra recta*, y suppose þou take þe altitude at þe poynt of 4, & makest a marke, & þou goost neer tyl þou hast yt at þe poynt of 3,  
 4 [\* Fol. 37] & þan makyst \*þou þer an-noþer mark. þan muste þou deuide 144 be eche of þe poyntes be-fornseyd, [as] þus: 3if þou deuide 144

**43a.** The reading *versam* (as in the MS.) is absurd. We must also read "*nat* come," as, if the base were approachable, no such trouble need be taken; see Art. 41. In fact, the present article is a mere repetition of Art. 43, with different numbers, and with a slight difference in the method of expressing the result. In fig. 18, if  $b'c' = 3$ ,  $bc = 4$ , we have  $E'B = \frac{3}{1\frac{1}{2}} BC$ ,  $EB = \frac{4}{1\frac{1}{2}} BC$ ; or, subtracting,  $EE' = \frac{4-3}{1\frac{1}{2}} BC$ ; or  $BC = 12 EE'$ . Then add the height of E, viz. Ea, which = AB.

**42b.** Here, "by the craft of *Umbra Recta*" signifies, by a method similar to that in the last article. In fig. 17, if  $bc = 3$ ,  $b'c' = 4$ , then  $EB = \frac{1\frac{2}{3}}{1\frac{1}{2}} BC$ , and  $E'B = \frac{1\frac{2}{3}}{1\frac{1}{2}} BC$ . Hence  $EE' = (\frac{1\frac{2}{3}}{1\frac{1}{2}} - \frac{1\frac{2}{3}}{1\frac{1}{2}}) BC$ . This may be written,  $EE' = (\frac{1\frac{2}{3}}{1\frac{1}{2}} - \frac{1\frac{2}{3}}{1\frac{1}{2}}) \frac{BC}{1\frac{1}{2}}$ , or  $EE' : BC :: \frac{1\frac{2}{3}}{1\frac{1}{2}} - \frac{1\frac{2}{3}}{1\frac{1}{2}} : 12$ ;



be [4,] & þe nombre þat comeþ þer-of schal be 36, & 3if þou deuide  
 144 be 3, & þe nombre þat comeþ þer-of schal be 48, þanne loke  
 what ys þe difference be-twen 36 & 48, & þer schalt þou fynde 12; 8  
 and ryȝt as 12 haþ hym to 12, ryȝt so þe space be-twen too prikkes  
 haþ hym to þe altitude of þe þyng.

\* \* \* \*

**46. For to knowe at what houre of þe day, or of the night, shal be  
 Flode or ebbe.**

First wite thou certainly, how that haven stondith, that thou list  
 to werke fore; þat is to say in whiche place of the firmament the  
 mone beyng, makip fulle see. Than awayte þou redily in what  
 degree of þe zodiak þat þe mone at þat tyme is yunne. Bringe furth 4  
 than þe labelle, & sett the point therof in þat same cost þat the mone  
 makip flode, and sett þou þere þe degree of þe mone according wip þe  
 egge of þe label. Than afterward awayte where is than þe degree of  
 the sonne, at þat tyme. Remeue þou than þe label fro the mone, & 8  
 bringe & sette [it] iustly vpon þe degree of þe sonne. And þe point of þe  
 label shal þan declare to þe, at what houre of þe day or of þe night  
 shal be flode. And þere also maist þou wite by þe same point of þe  
 label, whepir it be, at þat same, flode or ebbe, or half flode, or 12  
 quarter flode, or ebbe, or half or quarter ebbe; or ellis at what houre  
 it was last, or shalbe next by night or by day, þou þan [maist] esely

or : : 12 : 12; whence  $EE' = BC$ . This is nothing but Art. 42 in a rather  
 clumsy shape.

Hence it appears that there are here but 3 independent proposi-  
 tions, viz. those in articles 41, 42, and 43, corresponding to figs. 16, 17,  
 and 18 respectively. Arts. 41a and 41b are mere repetitions of 41; 43a  
 of 43; and 42a and 42b, of 42.

46. This article is probably not Chaucer's. It is found in MS.  
 Bodley 619, and perhaps nowhere else. What it asserts comes to this.  
 Suppose it be noted, that at a given place, there is a full flood when the  
 moon is in a certain quarter; say, e.g. when the moon is due east. And  
 suppose that, at the time of observation, the moon's actual longitude is  
 such that it is in the first point of Cancer. Make the label point due  
 east; then bring the first point of Cancer to the east by turning the  
*Rete* a quarter of the way round. Let the sun at the time be in the first  
 point of Leo, and bring the label over this point by the motion of the



knowe, etc. Furþermore if it so be þat thou happe to worke for þis  
 16 matere aboute þe tyme of coniuncceioun, bringe furþe þe degre of þe  
 mone wiþ þe labelle to þat coste as it is before seȳde. but<sup>t</sup> than þou  
 shalt vnderstonde þat þou may not bringe furþe þe label fro þe degre  
 of þe mone as þou dide before ; For-why the sonne is þan in þe same  
 20 degre *with* the mone. And so þou may at þat tyme by þe point of  
 the labelle vnremevid knowe þe houre of þe flode or of þe ebbe as it  
 is before seȳd, &c. And euermore as þou findest þe mone passe fro  
 þe sonne, so remeve þou þe labelle þan fro þe degre of þe mone, and  
 24 bringe it to the degre of þe sonne. And worke þou þan as þou dide  
 before, etc. Or ellis knowe þou what houre it is þat þou art inne, by  
 þin instrument. Than bringe þou furthe fro thennes þe labelle and  
 ley it vpon þe degre of þe mone, and þerby may þou wite also whan  
 28 it was flode, or whan it wol be next, be it nyght or day ; &c.

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label only, keeping the *Rete* fixed. The label then points nearly to the 32nd degree near the letter Q, or about S.E. by E.; showing that the sun is S.E. by E. (and the moon consequently due E.) at about 4 A.M. In fact, the article merely asserts that the moon's place in the sky is known from the sun's place, if the difference of their longitudes be known. At the time of conjunction, the moon and sun are together, and the difference of their longitudes is zero, which much simplifies the problem. If there is a flood tide when the moon is in the E., there is another when it comes to the W., so that there is high water *twice* a day. It may be doubted whether this proposition is of much practical utility.

## CRITICAL NOTES.

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**TITLE.** Tractatus, &c.; adopted from the colophon. MS. F has "tractatus astrolabii." The other title, 'Bred and mylk for childeren,' is in MSS. B and E.

[The MSS. are as follows:—A. Cambridge Univ. Lib. Dd. 3. 53.—B. Bodley, E Museo 54.—C. Rawlinson 1370.—D. Ashmole 391.—E. Bodley 619.—F. Corpus 424.—G. Trin. Coll. Cam. R. 15. 18.—H. Sloane 314.—I. Sloane 261.—K. Rawlinson Misc. 3.—L. Addit. 23002. (B. M.)—M. St. John's Coll. Cam.—N. Digby 72.—O. Ashmole 360.—P. Camb. Univ. Lib. Dd. 12. 51.—Q. Ashmole 393. See the descriptions of them in the Preface.]

**PROLOGUE.** l. 26. thise B; þese C; *miswritten* this A; see above, ll. 21, 22.

31. curious BC; *miswritten* curios A.

36. nawht B; nouȝt C; *miswritten* nahwt A.

42. Astrologiens] *miswritten* Astrologens ABC; but see l. 50 below.

48. practik B; practyk CM; *miswritten* practric A.

55. sonne BM; *miswritten* som A. The seven words, & tables—*sonne*, are omitted in C.

57. a-nother B; nother A; oþer C.

58. clerks AB; clerkus C; *but the best spelling is* clerkes.

59. theorik BC; thiorik A; *but A has* theorik in l. 70.

60. þe C; þ<sup>e</sup> B; A *omits*.

**PART I.** § 1, l. 1; throwbe B; þombe CM; *miswritten* towmbe A.  
3. wol B; wolde AC.

§ 2, l. 2. Astrelabie] *here miswritten* Asterlabie A.

N.B. *Rowm* is here an adjective, meaning *large, ample*. It is the right reading; we find Rowm AB; rowme C; rvm M.

§ 3, l. 1. AB *omit* þe; in C, it is inserted in the margin; in M, it is found in the text.

2. resseyuyth B; resseyueþ C; reseyueþ M; *miswritten* reseciued A.

3. shapen B; schapen CM; *miswritten* spapen A.

4. declaracioun] *here written* declaracioun A. See sect. 4, l. 6.

§ 4, l. 5. remenant (see sect. 5, l. 5)] remenaunt C; *miswritten* remenanañt A; remonant B. downe BC; down M; dowene A.

§ 5, l. 2. lengþe C; *miswritten* lenghte A; lenghte B.

§ 6, l. 2. litul B; lytel C; lite A.

§ 7, l. 6. by-twene BC; by-thwene A.

8. that is] this B; þis is [is *in margin*] C; this, *altered* to that A. Perhaps the right reading is 'this is'; but it is immaterial.

§ 9, l. 3. nombre AB; noubre C; *but the sense requires the plural*.

§ 10, l. 3. Septembre B] *miswritten* Sextembre A. 13. August BCM; August A.

§ 12, l. 5. The MSS. all<sup>1</sup> read—"vmbra recta or elles vmbra extensa, & the nether partie is cleped the vmbra versa." This is wrong; see the note on p. 7.

§ 13, l. 2. a certain] *so in* AB; CM *omit* a. But Chaucer certainly uses the phrase 'a certain'; cf. 'of unces a certain', C. T. 16244; 'a certain of gold', C. T. 16492.

§ 14, l. 4. streyneþ C; *miswritten* streynet AB.

N.B. The word *halt* for *holdeth*, and the expression *to hepe*, together, both occur in Troil. iii. 1770:—

'And lost were al, that Love *halt* now to *hepe*.'

5. ymagyned C; ymaginet B; ymagynd A.

§ 15, l. 2. with BC; wit A.

§ 16, l. 12. hane I C; haue y M; hauy B; haue A.

§ 17, l. 1. principal C; tropikal AB; M *om.* The reading *tropikal* is absurd, because there are but *two* such; besides which, see l. 33 below.

6. ptholome] ptolomeys almagest M.

9. by-gynneth B; bygynneþ C; by-gynned A.

17. the nyht (*over an erasure*) B; thee nyht (*over an erasure*) A; þe nyztes C; þe nyztes M.

20. cleped C; clopnd A; cheped B.

25. makeþ CM; maked AB.

34. turnyþ G; turneþ C; turned AB.

§ 19, l. 3. ouerthwert M; ouerþewart C; ouertward A; ouerthart B. *Read* ouerthwart; see Ch. Knights Tale, 1133.

8. for the more; A *has* fore more *here*; but see last lines of sections 17 and 18.

§ 20, l. 1. azymutz C; Azamutz B; *miswritten* azymitz A; *so in* l. 3, A *has the bad spelling* azimites.

4. figure; *here (and sometimes elsewhere) miswritten* vigur A. Throughout the whole treatise, the scribe has commonly written "vigur"; in many places, it has been corrected to "figure".

§ 21, l. 14. the *supplied from* BC.

15. is B; ys C; *miswritten* his A.

26. where as C; wher AB.

28. ymaginet AB; ymagyned C; *see* l. 25, *where, however, it is spelt* ymagened.

<sup>1</sup> As far as I can ascertain.

35. Minutes C ; Minnutes B ; Minites A.  
 39. swich B ; sich C ; swich A.  
 43. understonde CM ; vnderstonden AB.  
 53. ouerkernyd A ; ouerkerued B ; ouerkerneth (*the latter part of the word over an erasure*) C ; see l. 54.  
 56. here] *so elsewhere* ; hir AB, *in this place*.

PART II. § 2, l. 2. remewe CM ; remue AB.

3. thorgh ; *written* thorghw A ; þorw M ; þorwe C ; to 3ow (!) B.

8. euer M ; euere C ; euery (*wrongly*) AB.

§ 3, l. 9. sitten] *written* siten AB ; sitte C ; sittyn M.

11. owre] *written* howre AB ; oure C.

22. down B ; don A.

30, 31. A has 12 degrees, *corrected to 18 degrees* ; B has 12 degrees ; C has 18. The numbers in the MSS. in these propositions are somewhat uncertain ; it seems probable that some alteration was made by Chaucer himself.

The readings in MS. B give one set of calculations, which are no doubt the original ones ; for in MS. A the same set is again found, but altered throughout, by the scribe who drew the diagrams. The sets of readings are these :—

l. 30, 31. 12 degrees B ; *so in A, but altered to 18* ; C has 18.

36. passed 9 of the klokke the space of 10 degrees B ; *so in A, with 9 altered to 8, and 10 altered to 2* ; C has ij for 9, but agrees with A in the reading 2.

38. fond ther 10 degrees of taurus B ; *so in A originally, but 10 has been corrected to 23, and libra is written over an erasure*. C agrees with neither, having 20 for 10, but agreeing with A as to libra. The later MSS. sometimes vary from all these. See Chaucer's *Astrolabe*, ed. E. A. Brae, p. 34.

41. an *supplied from C* ; AB omit.

§ 4, 5. largest C ; largesse AB.

6. vpon] upon C ; *miswritten vn* AB.

7. forseide degre of his longitude] forseyde same degre of hys longitude C ; forseid same gre of his longitude P ; forseyde latitude his longitude (*sic !*) AB.

8. planete ys C ; *miswritten* planetes AB, but is *added in margin of A*.

14. For "25 degrees," all the MSS. have "15 degrees." The mistake is probably Chaucer's own ; the correction was made by Mr Brae, who remarks that it is a mere translation from the Latin version of Ptolemy's *Tetrabiblos*, which has—"Signum ascendentis, quod est a *quinque* gradibus qui super horizontem ante ipsum ascenderant usque ad *viginti quinque* qui ad ascendentem remanserint"; Lib. iii. c. 10. In fact, it is clear that 25 must be added to 5 to make up the extent of a "house," which was 30 degrees.

15. ys like C ; is lik P ; *miswritten* illyk AB. in is *supplied from GM* ; ABC omit it.

18. Astrologiens B; Astrologens AC.  
 22. þe supplied from CP; AB omit.  
 30. wel supplied from CPM; AB omit.  
 34. than] þan CM; þenne P; AB omit.  
 37. The number 10 is supplied from C; AB omit. It is obviously right, since the third part of 30 is 10.  
 39. some folk supplied from CPG; AB omit.  
 41. yit is] AB wrongly have yit it is; but CPGM omit it.  
 § 5, l. 3. by 2 & 2 ACG; by 3 & 3 P; left blank in B. Either reading makes sense, but it is clear that divisions representing three degrees each must have been very awkward.  
 10. of supplied from CPGM; AB omit.  
 11. towcheþ A; toucheþ C; towecheþ B.  
 § 6, l. 1. nadir B; nadair AC.  
 5. est C; west A (*which is absurd*); west (*corrected to est*) B.  
 9. signe CGP; signes ABM.  
 § 7, l. 1. orisonte B; *miswritten* oriensonte A.  
 § 10, l. 3. than B; þan C; A has & by nyht, *which is absurd*.  
 4. A omits day with þe howr inequal of þe, *which is supplied from BCP; the number 30 is also supplied from BCM, as A has a blank space there; see l. 9.*  
 6. answering] answerynge C; answeryng P; *miswritten* answerine A; answerit B.  
 § 11, l. 8. by nyht B; be nyhte A; see l. 3 above, and l. 11 below.  
 12. The number 4 is from CP; AB omit. þer supplied from PM; þere C; AB omit.  
 § 12, l. 1. the supplied from BC; A omits.  
 8. The figure 2 is from BCP; G has secunde; A omits.  
 10. entriþ] entriþ P; entryth G; entreþ CM; *miswritten* entrist AB.  
 § 13, l. 4. this ys C; this is G; þis is M; þat is P; AB omit is.  
 § 14, l. 9. The last line supplied from B.  
 § 15, l. 5. varieth] varieþ CM; varyþ P; variet ABG.  
 6. pointe] point P; pointes A; pointz B; poyntes C; *but grammar requires the singular.*  
 the supplied from CP; AB omit.  
 § 16, l. 5. AB wrongly insert the before Cancer; CP omit it.  
 8. ilike] Ilyke G; ilik P; y-like C; ilke AB; see l. 7.  
 § 17. Latin rubric; for *latitudinem* (as in M) read *longitudinem*.  
 l. 17. bened B; hed ACP; see sect. 16, l. 3. The word "the" (rightly placed in BCMP) is, in A, wrongly placed before "aries" instead of before "ende."  
 23. the] þe C; AB omit.  
 25. his] *miswritten* is in A; here, and in ll. 18, 20, and 22.  
 § 18, l. 2. on B; upon C; vpon MP; vn A. Probably the form "vn" points to the reading "vpon" as being the correct one; cf. note above to sect. 4, l. 6.  
 4. comeþ C; comyþ P; comth AB.

§ 19. *Latin Rubric*; for *orizon* (as in M) read *statio*.

7. comunely B; communely C; comuly A.

8. declineþ CP; declinet AB.

§ 20. *Latin Rubric*; the MS. (M) transposes the words *in* and *a*, having *a zodiaco in circulo*, which contradicts the sense.

2. his CP; is AB.

§ 22. *Latin Rubric*; for *centri* (as in M) read *contrade*, or *regionis*.

3. as hey is] as hei; is C; as hy is P; as hey as (*wrongly*) AB.

13. distance B] distaunce CP; destance A.

§ 23, l. 20. The figure "8" is omitted in AB. It is obviously required.

22. than] A omits; thanne inserted afterwards in B.

§ 25. *Latin Rubric*. For *altitudinem*, M has *latitudinem*, an obvious error, due to the rubric of the preceding section.

3. the] supplied from B; AC omit.

15. CP om. And 10 minutes.

16. CP om. And minutes owt. For 51 degrees and 50 minutes, C has 52; þan is 52 degrees; and P has 52. þenne is .52. grees.

19. CP om. as y myght proue.

20. þe supplied from CP; AB om.

21. whaite] so in A; waite B; wayte C.

26. þe firste degre] 10 degrees C; 10 gree P.

27. 58 degrees and 10 Minutes] almost 56 C (*meaning* 56 degrees); almost .56. grees P.

28. almost 20] almost 18 C.

29. the] C om. and odde Minutes] CP om.

It thus appears that there is a second set of readings, involving a different calculation. The second set supposes the Sun to be in the 10th degree of Leo, his altitude to be 56°, and his declination 18°; the difference, viz. 38°, is the latitude. Either set of readings suits the sense, but the one in the text agrees best with the former latitude, viz. 51°. 50'.

33. sonne C; *miswritten* sonnes AB.

36. After there, C inserts 38 grees, þat is; and omits the words of the pole, 51 degrees & 50 Minutes. But this is a mere repetition of the "height of the Equinoctial," and is obviously wrong. After pole, A inserts an that, which is unmeaning, and omitted in B.

39. nethere] neperest CP.

§ 26, l. 8. The missing portion appears in MS. Bodley 619; I have not found it elsewhere. It is obviously correct, and agrees sufficiently closely with the conjectural addition by Mr Bræ, in his edition of Chaucer's *Astrolabe*, p. 48. He supplied the evident hiatus by the words—"A right circle or horizon have those people that dwell under the equinoctial line."

13. cenyth BC; cenytht A. A inserts the *between* 2 and wynteres; absurdly.

15. schewep CM; *miswritten* swewyth AB.



22. ouerkerneþ C; ou erkeruyht (*sic*) A; on ekir nyht (!) B; ouerkeruiþ P.

§ 27, l. 2. the] *supplied from* BCPM; A *om.*

3. towchieth] towchiet A; towchet B; towchip P; towcheþ C; *see* l. 6.

§ 28. *Latin Rubric.* The word *recto* is obviously wrong; read *obliquo*, and omit the last five words of the rubric.

2. thyn] *so in* B; þyn P; þin C; *miswritten* thyin A.

3. set] sett C; sete P; AB *omit.*

11. these] þese C; thise B; the A.

22. ende] heed A; hened C. In fact, *heed*, *heued*, or *hed* seems to be the reading of all the MSS. and printed copies, and may have been a slip of the pen in the first instance. The reading *ende* is, however, amply justified by its previous occurrence, four times over, in lines 9, 13, 16, 18. We thus have

Six Northern signs. From *head* of Aries to *end* of Virgo.

Six Southern signs. From *head* of Libra to *end* of Pisces.

Six Tortuous signs. From *head* of Capricorn to *end* of Gemini.

Six Direct signs. From *head* of Cancer to *end* of Sagittarius.

Opposite "sagittare" is written "sagittarie" in the margin of A, probably as a correction; but it is left uncorrected in l. 26.

§ 29, l. 3. turne thanne] Turne þan C; turne the thanne AB; *where* "the" is *wholly superfluous*; *see* l. 8.

9. thow] þou C; two AB.

13. thorow] *so in* B; þorow C; thoorw A. rewle] rule CP; *miswritten* rewles AB; *see* l. 9.

§ 30. *English Rubric*; whether] wheþer CP; *miswritten* wherther AB.

6, 9. shewith] schewiþ P; scheweþ C; schewyþ M; swewith AB.

11. wey A; place C. *After* zodiak C *inserts*—for on þe morowe wol þe sonne be in a-noþer degre þan þan, & cetera; P *inserts*—For yn þe morowe wol þe sonne be yn an oþer gree, & norþer or souþer par aventure. Nothing can be plainer than that "the way of the sun" in this passage means the small circle formed by the sun's apparent path during a day; the text says expressly—"the wey wher as the sonne wente thilke day." We need not argue about the impossibility of a planet being found in "the way of the Sun" at midnight at the time of the Summer solstice, because Chaucer makes no assertion whatever here about the relative positions of the sun and planet; indeed, he carefully repeats "if" three times. He is only concerned with defining the phrase—"the latitude of a planet from the way of the sun"; and in every possible case, it is clear that a planet can be either (1) situate in the small circle called in the Latin rubric *cursus solis*, or (2) to the north of such a circle, or (3) to the south of such a circle. About this there need be no difficulty at all. It is all copied from Messahala.

§ 31, l. 7. azymut] azymutz ABC; *but it is clear that the singular must be used*, as in sect. 32, l. 8. P has minute.

12. sowth B] þe souþe C; soth A.

§ 33, l. 2. Azymnt] Azymntz ABC; minutis P; *the same error as in* sect. 31, l. 7; *but see* sect. 32, l. 8. stondith] stondeþ C; shal stondith (*sic*) A; *where shal is over an erasure.*

3. in] yn P; ABC *omit.* It is of no consequence whether the word *in* be inserted or not; we find, on the one hand—" & in this same wyse maistow knowe by nyhte;" sect. 2, l. 6; and on the other—" the same wyse wyrke thow;" sect. 37, l. 14.

4. the nyht] *so in* AB; CP *om.* the; *and perhaps it is better omitted,* as in sect. 2, l. 6.

5. *After* north, B *inserts* or sowth; C *inserts* or south.

6. is the sterre A; þe sterre stondeþ CP.

§ 34. *English Rubric*; latitude for] *so in* CP; latitude and for AB, *where and is superfluous, though perhaps it points to the reading latitude as for.*

5. is BC; his A.

6. towchith] touchiþ P; to which (*sic*) ABC; *see* sect. 27, l. 6. In A, the word *assendente* is neatly written above zodiak.

9. Astrolabie] Astrolobie A.

10. wheyther] wheþer CP; wheyth AB.

12. shewe] *so in* BP; schewe CM; swewe A.

13. this] þis P; thise AB; þese C; *moreover, C has conclusionns.* But the singular seems intended; see l. 8.

§ 35, l. 1. sterre BC; sterree A.

6, 7. whan C; wan AB (*twice*).

10, 13, 14. his C; is AB (*thrice*).

15. *After* west side, AB *add* & yf he be on the est syde, a mere *superfluous repetition*; see l. 11.

17. sothly] soþly CP; *miswritten* he settes (!) AB.

18. hire Episicle] *so in* CP; *by an odd mistake, AB put hire after manere, instead of before* Episicle.

§ 36, l. 3. remeue] Remewe CP; remue AB.

5, 7, 10, 16. I leave the spelling *howys* (or *howis*) as it stands in the MS.; see *house* in l. 12; *hows* in l. 13; *hous* (as in C) in l. 15.

16. *Here A inserts the before nadir*; it might have omitted, as in ll. 13, 14, 15, and 17. Indeed, MS. B omits it.

§ 37, l. 6. the degree] þe degree C; thee degree A. assendeth] ascendeþ C; assendet A; assendent B.

9. than] þan C; AB *omit.*

10. is] AB *omit*; *but it is obviously wanted*; C *varies here.*

12. 12 howse next] 12 hous next C; howses nex (*sic*) AB.

13. thanne] þan C; fro (!) B; A *omits.* howse] hous C; howses AB.

16. AB *absurdly insert* fro *before* the bygynnyng.

17. the] þe C; AB *omit.*

§ 38, l. 1. warpyng MP; werpynge C; weripinge (*sic*) A; wernipinge (*sic*) B.

2. a CP; AB *omit.*

3, 4. an enene C; a euene AB (*twice*).

7. fro the centre; i. e. *above* the centre. The length of the pin, measured from the centre in which it is inserted, is to be not more than a quarter of the diameter, or half the radius. This would make the ratio of the gnomon to the shadow (or radius) to be one-half, corresponding to an altitude  $\alpha$ , where  $\tan \alpha = \frac{1}{2}$ ; i. e. to an altitude of about  $26\frac{1}{2}^\circ$ . As Chaucer talks about the sun's altitude being  $25\frac{1}{2}^\circ$  at about 9 o'clock, at the time of the equinoxes (sect. 3), there is nothing that is particularly absurd in the text of this section. For Mr Brac's conjectural emendations, see p. 56 of his edition.

15. tak thanne] *so in P*; tak me thanne AB; take me þan C. But there seems no sufficient reason for thus inserting *me* here. Cf. "Tak a rond plate," l. 1; "tak than a compas," l. 14; "tak ther thy lyne," l. 17.

§ 39. At this point MS. A, which has so far, in spite of occasional errors of the scribe, afforded a very fair text, begins to break down; probably because the corrector's hand has not touched the two concluding sections, although section 40 is much less corrupt. The result is worth recording, as it shews what we may expect to find, even in good MSS. of the Astrolabe. The section commences thus (the obvious misreadings being printed in italics):—

"This lyne Meridional ys but a Maner descripcion *or the* ymaged, that passeth vpon the pooles of þis *the* world And by the cenyth of owre heued / And hit is *the same* lyne Meridional / for in what place þat any maner man [*omission*] any tyme of the yer / whan that the sonne *schyneth only thing* of the firmament cometh to his verrey *Middel lyne of the place* / than is hit verrey Midday, þat we clepen owre noon," &c.

It seems clear that this apparent trash was produced by a careless scribe, who had a good copy before him; it is therefore not necessary to reject it all as unworthy of consideration, but it is very necessary to correct it by collation with other copies. And this is what I have done.

MS. B has almost exactly the same words; but the section is considerably better, in general sense, in MSS. C and P, for which reason I here quote from the former the whole section.

[*Rawl. MS. Misc. 1370, fol. 40 b.*]

Descripcioun of þe meridional lyne, of þe longitudes and latitudes of Citees and townes, as wel as of a (*sic*) clymatz.

39. *conclusio*. This lyne meridional is but a maner discripcioñ or lyne ymagyned, þat passeþ upon þe pooles of þis worlde, and by þe Cenith of oure heued. ¶ And yt is cleped þe lyne meridional, for in what place þat any man ys at any time of þe zere, whan þat þe sonne by meuyng of þe firmament come to his uerrey meridian place / þan is it þe uerrey mydday þat we clepe none, as to þilke man. And þerefore is yt cleped þe lyne of mydday. And nota, þat euerno of any .2.

citees or of 2 townes, of which þat oo towne a-procheþ neer þe est þan doþ þe oper towne, trust wel þat þilke townes han diuerse meridians. *Nota* also, þat þe arche of þe equinoxial, þat is contened or boundd by-twixe þe two meridians, is cleped þe longitude of þe towne. ¶ & 3if so be / þat two townes haue I-like meridian or one merydian, ¶ Than ys þe distaunce of hem boþe I-like fer from þe est, & þe contrarye. ¶ And in þis maner þei chaunge not her meridian, but soply, þei chaungen her almykantes, For þe enhaunsynge of þe pool / and þe distaunce of þe sonne. ¶ The longitude of a clymate ys a lyne ymagyned fro þe est to þe west, I-like distaunte fro þe equinoxial. ¶ The latitude of a clymat may be cleped þe space of þe erþe fro þe by-gynnyng of þe first clymat unto þe ende of þe same clymat / euene-directe a-ȝens þe pool artyke. ¶ Thus seyn somme auctours / and somme clerkes seyn / þat 3if men clepen þe latitude of a contrey,<sup>1</sup> þe arche mer[i]dian þat is contened or intercept by-twixe þe Cenyth & þe equinoxial; þan sey þei þat þe distaunce fro þe equinoxial unto þe ende of a clymat,<sup>2</sup> euene a-gaynes þe pool artik, is þe latitude off þat climat<sup>2</sup> forsoþe.

The corrections made in this section are here fully described.

1. of lyne P; of a line I; or lyne C; or the AB.
2. þis] þis the AB, *absurdly*; CP *omit* the, *rightly*.
3. ycleped the] y-clupid þe P; cleped þe C; the same (*sic*) AB.
4. ys at; *supplied from* PCI; AB *omit*.
5. by moeyung] by meuyng C; by mevyng PI; schyneth ony thing (*sic*) A; schyned eny thing B; *for the spelling* moeyung, *see* sect. 35, l. 5.
6. meridian CP; meridianale I; Middel lyne of the (*sic*) AB.
8. 2 citees CI; too citees P; any lynes (*sic*) AB.
9. aprochith] a-procheþ C; aprochiþ P; *miswritten* aprochid AB. more toward] neer C; ner P; neerer I; thoward AB.
11. conteyned I; conteynyd P; contened C; considereed (*sic*) A; continued B.

13. yf P; 3if C; if it I; AB *omit*. N.B. It would have been better to have used the spelling *yif*, as the word is commonly so spelt in A.

21. same CPI; *seconde* AB. The reading *same* is right; for the "latitude of a climate" means the breadth of a zone of the earth, and the latitude of the first climate (here chosen by way of example) is the breadth as measured along a line drawn perpendicular to the equator, from the beginning of the said first climate to the end of *the same*. The words "euene-directe agayns þe poole Artik" mean in the direction of the North pole; i. e. the latitude of a climate is reckoned from its beginning, or *southernmost* boundary-line towards the end of the same, viz. its *northern* boundary-line.

<sup>1</sup> Here insert—[þey mene]—which CP omit.

<sup>2</sup> The words from *euene* to *climat* are added at the bottom of the page in the MS.

22. þe poole Artik P; þe pool artyke C; the pole artike I; from north to south AB. Observe that this singular error in A, "euene directe agayns from north to south," probably arose from a confusion of the text "euene directe agayns þe poole Artik" with a gloss upon it, which was "from north to south." It is important as throwing light on the meaning of the phrase, and proving that the interpretation of it given above (note to l. 21) is correct.

24. intercept CP; intercepte I; except (*over an erasure*) AB.

The only reading about which there is any doubt is that in line 18, which may be either "illike distant by-twene them alle" (A), or "I-like distaunte fro þe equinoxial" (C). But it is immaterial which reading be adopted, since *Illike-distant* is here used merely in the sense of *parallel*, and the boundaries of the climates are parallel both to one another, and to the equinoctial. The climates themselves were of different breadths.

§ 40, l. 4. this samples AB; pese ensamples C. *For this read these or these.*

5. for sothe] *miswritten* for sonne AB; in general C; yn special P; *the reading sonne points to sothe, and makes it very probable that for sothe is the true reading.*

6. longitude] þe longitude C; latitude AB (*absurdly*); see l. 11. Perhaps we should read "the longitude"; but it is not very material.

7. planete; *miswritten* that A, *but corrected to planete in the margin*; C has planete, *correctly*. The figure 6 is omitted in C; so are all the other figures further on. him] hir C.

8. I tok] Than toke I C. 8, 15. 2 degrees A; 3 degrees B.

10. Than tok I] Than toke I C; *for tok AB wrongly have stykke, afterwards altered to stokke in A. the] supplied from C, which has þe; AB omit.*

15. hauy A; haue I C.

22. the] þe C; AB *omit*.

25. prikke] prikes C; *perhaps prikkes would be a better reading.*

27. AB *omit the figure 2; but see l. 8.*

30. in alle] in al C; A has septentrionalle, *an obvious mistake for septentrional in alle, by confusion of the syllable "al" in the former with "al" in the latter word; B has septentrional, omitting in alle.*

33. sothly] *so in B; soþly C; miswritten sothtly A; see l. 30. signes C] tymes AB (wrongly); see l. 30.*

39. hauy AB; haue I C.

43. *Perhaps euene before of should be omitted, as in C. AB have in the ende euene ouer of thee, where euene ouer is repeated from the former part of the line.*

44. F endlang] F endlonge C; A euene AB; *but see l. 22.*

45. A *omits of and degrees, yet both are required; BC omit of 3 degrees altogether.*

47. til] tyl þat C; the AB (*absurdly*). saw] sey C; may AB; *see l. 27.*

53. hire] his ABC. a] ABC *omit*.

54. *At the word howre four of the best MSS. break off, viz. MSS. ABCE, although E adds one more section, viz. sect. 46; others come to a sudden end even sooner, viz. MSS. DFGHIK. But MS. P carries us on to the end of sect. 43, and supplies the words—þu shalt do wel ynow.*

§ 41, 6. betwen] be M (*wrongly*); by-twyn L; see l. 5.

7. M *inserts & before* to þe altitude; a mere slip. For; *miswritten* Fro M. þridde; *miswritten* ridde M.

11. poynt L; *miswritten* poynt M.

12. LM *wrongly place of after* þe heyzt *instead of before it*; see the footnote.

§ 42, l. 2. see] so in L; *miswritten* sette M; see sect. 41, l. 4.

3. y] I L; M *omits*.

7. M *omits* as, above, and is þe; L has 12 passethe 6 the.

10. seest] so in L; *miswritten* settest M; cf. l. 2; P has sixt (*a common old form for seest*).

11. 60] LN; sexe M.

12. M *omits from* 10 is to 10 fete, *which is supplied from* NLP.

13. For] so in LN; fro M.

14. For 2, M has 6.

15. For 3, M has 4; for 2, M has 6; for 6, M has 2; and the words and 3 is 4 partyes of 12 are omitted, though L has—& 4 is the thrid partye of 12.

17. betwen] by-twene L; bitwixe P; *miswritten* be M; cf. sect. 41, 6.

18. þre] 3 LP; *miswritten* þe M.

§ 43. Rubric, *Vmbra Versa*; obviously a mistake for *Recta*. The error is repeated in l. 1. LP rightly read *Recta*.

3. M *omits* 1, *which is supplied from* LP; see l. 5.

4. difference] diffrence M; cf. sect. 42, 17.

10. After heythe, LN *add* to thyn eye. In place of lines 8—10, P has—& so of alle oper, &c.

§ 44. From MS. Digby 72 (N). Also in LMO.

2. fro] so in LO; for M.

3. in-to] so in L; in M. for] so in O; fro M.

6. 3eris M; LNO *omit*.

7. tabelis NO; table M; tables L.

8. where L; qwere O; wheþer N.

9. loke LM; N *omits*.

10. NM *omit from* or what to or; *supplied from* O, *which has—or* qwat nombre þat euere it be, tyl þe tyme þat þou come to 20, or 40, or 60. *I have merely turned qwat into what, as in L, which also has this insertion.*

12. wreten N; the alteration to wryte is my own; see l. 22.

vnder] so in L; vndirneþe M.

13. to-geder] too-geder M; *miswritten* to 2 degreis N; to the 2 degrees L.

14. hast M; *miswritten* laste N; last L.



15. þat; *supplied from M; LN omit.*  
 16. For 1 (as in M) LN have 10.  
 20. to-gedere M; to the degreis N; 2 grees O; to degrees L.  
 21. þat; *supplied from M; LNO omit.*  
 lasse] passid LNO; M *omits.* Of course *passid* is wrong, and equally of course *lasse* is right; see ll. 5, 6 above, and l. 24 below.  
 24. þat] *so in L; þat MO; if hit N.*  
 25. entrynge] entre M; entre L.  
 26. þer] *so in M; miswritten the 3ere N; the 3eer L.*  
 28. merydie LM; merdie N.  
 30. for LM; fro N (*twice*).  
 32. tha3the N; haue tau3t M; haue taw3t O; haue tauht L.  
 33. þe; *supplied from M; LNO omit.*  
 34. with þe] *so in M; wyche N; see l. 36.*  
 38. in-to N; yn M.  
 § 45. From MS. Digby 72 (N); also in LO; but not in M.  
 4. that] the L; þe O.  
 6. I-wryton] wrytoun O; Iwyton N. But L has I wold wyttyn, and I would therefore, on second thoughts, propose to read—I wolde wyten precise my rote.  
 7. 1397] *miswritten 1391 LN; O has 1391, corrected to 1397; see l. 3.*  
 10. so3th N; sowte O; sowthe L.  
 12. vnder N; vndyr-nethe O; vndre-nethe L.  
 18. oþer in any oþer tyme or mony3th N; or any oder tymys or monthys O; or in any other moneth L.  
 24. adde] *supplied from L; NO omit.* There is no doubt about it, for see l. 14.  
 27. wete þe] *so in O; wete thi L; miswritten with thy N; see l. 17.*  
 31. and] *supplied from LO; N omits.*  
 32. abowe N; aboue LO.  
 36. lewyth N; leuyth LO.  
 § 41a. This and the remaining sections are almost certainly spurious. The last occurs in MS. Bodley 619 (E) only; the others are in LMN, the first (41a) being also found in O. The text of 41a—42b is from M.  
 3. hast] *supplied from L; M omits.*  
 § 42a, 1. heyth by þy N; heyth by the L; M *om.*  
 4. lyk] lykk M; L *omits.* mete] mette M; mett L.  
 9. ys] is L; *miswritten hys M.*  
 § 43a, 1. nat] nott L; M *omits;* see the footnote. In the rubric, M has *versam*; but L has the rubric—*Vmbra Recta.*  
 § 42b, 5. as] *so in L; miswritten & M.*  
 6. 4 is *supplied from L; M omits.*  
 § 46, 9. it] E *omits.*  
 14. maist] E *omits.*

## ADDITIONAL NOTES.

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PROLOGUE. l. 7. *suffisaunt*, sufficiently good. In the best instruments, the Almicanteras, or circles of altitude, were drawn at distances of one degree only; in less carefully-made instruments, they were drawn at distances of two degrees. The one given to his son by Chaucer was one of the latter; see Part II. sect. 5.

10. *a certain*, i. e. a certain number; but the word *nombre* need not be repeated; cf. *a certain holes*, Pt I. sect. 13, l. 2, and see the very expression in the Miller's Tale, l. 7.

20. *suffise*, let them suffice.

58. "Nicolaus de Lynna, i. e. of Lynn, in Norfolk, was a noted astrologer in the reign of Edward III., and was himself a writer of a treatise on the Astrolabe. See Bale—who mentions 'Joannes Sombe' as the collaborateur of Nicolaus—'Istos ob eruditionem multiplicem, non vulgaribus in suo Astrolabio celebrat laudibus Galfridus Chaucer poeta lepidissimus;' BALE (edit. 1548), p. 152."—Note by Mr Brae, p. 21 of his edition of the Astrolabe.

Warton says that "John Some and Nicholas Lynne" were both Carmelite friars, and wrote calendars constructed for the meridian of Oxford. He adds that Nicholas Lynne is said to have made several voyages to the most northerly parts of the world, charts of which he presented to Edward III. These charts are, however, lost. See Hakluyt's Voyages, i. 121, ed. 1598; Warton, Hist. E. P. ii. 357; ed. 1871.

Tyrwhitt, in his Glossary to Chaucer, s. v. *Somer*, has the following. "The Kalendar of John Somer is extant in MS. Cotton, Vesp. E. vii. It is calculated for 140 years from 1367, the year of the birth of Richard II., and is said, in the introduction, to have been published in 1380, at the instance of Joan, mother to the king. The Kalendar of Nicholas Lenne, or Lynne, was calculated for 76 years from 1387. Tanner in v. *Nicolaus Linensis*. The story there quoted from Hakluyt of a voyage made by this Nicholas in 1350 *ad insulas septentrionales antehac Europæis incognitas*, and of a book written by him to describe these countries *a gradu 54. usque ad polum*, is a mere fable: as appears from the very authorities which Hakluyt has produced in support of it." It seems probable, therefore, that the "charts" which Warton says are "lost" were never in existence at all. The false spelling "Some" no doubt arose from neglecting the curl of contraction in *Somere*.

PART I. § 5, l. 5. *the remanant*, &c. i. e. the rest of this line (drawn, as I said,) from the foresaid cross to the border. This appears awkward, and we should have expected “fro the forseide *centre*,” as Mr Brae suggests; but there is no authority for making the alteration. As the reading stands, we must put no comma after “this lyne,” but read on without a pause.

7. *principals*. It is not unusual to find adjectives of French origin retaining *s* in the plural; only they commonly *follow* their nouns when thus spelt. Cf. *lettres capitales*, i. 16. 8. On the other hand, we find *principal cerckles*, i. 17. 33.

§ 7. 4. *nowmbres of augrym*; Arabic numerals. The degrees of the border are said to contain 4 minutes *of time*, whilst the degrees of the signs are divided into minutes and seconds of angular measurement, the degrees in each case being the same. There is no confusion in practice between these, because the former are used in measuring time, the latter in measuring angles.

§ 8. 9. *Alcabucius*; i. e. (says Warton, Hist. E. P. ii. 357, ed. 1871) Abdilazi Alchabitius, whose *Introductorium ad scientiam judicalem astronomie* was printed in 1473, and afterwards. Mr Brae quotes the very passage to which Chaucer refers, viz. “Et unumquidque istorum signorum dividitur in 30 partes equales, quæ gradus vocantur. Et gradus dividitur in 60 minuta; et minutum in 60 secunda; et secunda in 60 tertia; similiterque sequuntur quarta; similiter et quinta; ascendendo usque ad infinita;” Alchabitii Differentia Prima.

These minute subdivisions were never used; it was a mere affectation of accuracy, the like of which was never attained.

§ 10. 5. *in Arabyens*, amongst the Arabians. But he goes on to speak only of the Roman names of the months. Yet I may observe that in MS. II. 3. 3, at fol. 97, the Arabian, Syrian, and Egyptian names of the months are given, as well as the Roman.

§ 16. 12. & *every Minut 60 secondes*; i. e. every minute contains 60 seconds. The sentence, in fact, merely comes to this. “Every degree of the border contains four minutes (*of time*), and every minute (*of time*) contains sixty seconds (*of time*).” This is consistent and intelligible. Mr Brae proposes to read “*four seconds*”; this would mean that “every degree of the border contains four minutes (*of time*), and every minute (*of the border*) contains four seconds (*of time*).” Both statements are true; but, in the latter case, Chaucer should have repeated the words “*of the bordure*.” However this may be, the proposed emendation lacks authority, although the reprint of Speght changed “lx” into “fourtie,” which comes near to “four.” But the reprint of Speght is of no value at all. See Mr Brae’s preface, p. 4, for the defence of his proposed emendation.

§ 17. 6. *Ptholome*. The John’s MS. has *ptolomeys almagest*. “*Almagest*, a name given by the Arabs to the μεγάλη σύνταξις, or *great collection*, the celebrated work of Ptolemy, the astronomer of Alexandria [floruit A.D. 140—160]. It was translated into Arabic about the year

A.D. 827, under the patronage of the Caliph Al Mamun, by the Jew Alhazen ben Joseph, and the Christian Sergius. The word is the Arabic article *al* prefixed to the Greek *megistus*, 'greatest,' a name probably derived from the title of the work itself, or, as we may judge from the superlative adjective, partly from the estimation in which it was held."—English Cyclopædia; Arts and Sciences, i. 223. The *Almagest* "was in thirteen books. Ptolemy wrote also four books of judicial astrology. He was an Egyptian astrologist, and flourished under Marcus Antoninus. He is mentioned in the *Soupnour's Tale*, l. 1025, and the *Wif of Bathes Prologue*, l. 324."—Warton, *Hist. E. P.* ii. 356, ed. 1871. The word *almagest* occurs in the *Miller's Tale*, near the beginning, and twice in the *Wif of Bathes Prologue*.

Chaucer says the obliquity of the ecliptic, according to Ptolemy, was  $23^{\circ} 50'$ . The *exact* value, according to Ptolemy, was  $23^{\circ} 51' 20''$ ; *Almagest*, lib. i. c. 13. But Chaucer did not care about the odd degree, and gives it nearly enough. See note to ii. 25. 18.

8. *tropos*, a turning; Chaucer gives it the sense of *agaynward*, i. e. in a returning direction.

14. The equinoctial was supposed to revolve, because it was the "girdle" of the *primum mobile*, and turned with it. See note below to l. 27.

14. "As I have shewed thee in the solid sphere." This is interesting, as shewing that Chaucer had already given his son some lessons on the motions of the heavenly bodies, before writing this treatise.

26. *angulus*. We should rather have expected the word *spera* or *sphæra*; cf. "the sper solide" above, l. 15.

27. "And observe, that this first moving (*primus motus*) is so called from the first movable (*primum mobile*) of the eighth sphere, which moving or motion is from East to West," &c. There is an *apparent* confusion in this, because the *primum mobile* was the *ninth* sphere; but it may be called the movable of the eighth, as *giving motion to it*. An attempt was made to explain the movements of the heavenly bodies by imagining the earth to be in the centre, surrounded by a series of concentric spheres, or rather shells, like the coats of an onion. Of these the seven innermost, all revolving with different velocities, each carried with it a planet. Beyond these was an eighth sphere, which was at first supposed to be divided into two parts, the inner part being the *firmamentum*, and the outer part the *primum mobile*; hence the *primum mobile* might have been called "the first moving of the eighth sphere," as accounting for the more important part of the motion of the said sphere. It is simpler, however, to make these distinct, in which case the eighth sphere is the *firmamentum* or *sphæra stellarum fixarum*, which was supposed to have a very slow motion from West to East round the poles of the *zodiac* to account for the precession of the equinoxes, whilst the ninth sphere, or *primum mobile*, whirled round from East to West once in 24 hours, carrying all the inner spheres with it, by which means the ancients accounted for the diurnal revolution.

This ninth sphere had for its poles the north and south poles of the heavens, and its "girdle" (or great circle equidistant from the poles) was the equator itself. Hence the equator is here called the "girdle of the first moving." As the inner spheres revolved in an *opposite direction*, to account for the *forward* motion of the sun and planets in the ecliptic or near it, the *primum mobile* was considered to revolve in a *backward* or *unnatural* direction, and hence Chaucer's apostrophe to it (*Man of Lawes Tale*, 295)—

" O firste moeuyng cruel firmament,  
With thy diurnal sweigh that crowdest ay  
And hurlest al from Est til Occident,  
That naturelly wolde holde another way."

That is—" O thou *primum mobile*, thou cruel firmament, that with thy diurnal revolution (or revolution once in 24 hours round the axis of the equator) continually forcess along and whirlest all the celestial bodies from East to West, which *naturally* would wish to follow the course of the sun in the zodiac from West to East." This is well illustrated by a sidenote in the Ellesmere MS. to the passage in question, to this effect:—"Vnde Ptholomeus, libro i. cap. 8. Primi motus celi duo sunt, quorum vnus est qui mouet totum semper ab Oriente in Occidentem vno modo super orbes, &c. Item aliter vero motus est qui mouet orbem stellarum currencium contra motum primum, videlicet, ab Occidente in Orientum super alios duos polos."<sup>1</sup> That is, the two chief motions are that of the *primum mobile*, which carries everything round from East to West, and that of the fixed stars, which is a slow motion from West to East round the axis of the zodiac, to account for precession. This exactly explains the well-known passage in the *Frankleines Tale* (C. T. ed. Tyrwhitt, 11592)—

" And by his eighte speres in his werking,  
He knew ful wel how fer Alnath was shoue  
Fro the hed of thilke fix Aries above  
That in the ninthe spere considered is."

Here the eight spheres are the eight inner spheres which revolve round the axis of the zodiac in an easterly direction, whilst the ninth sphere, or *primum mobile*, contained both the theoretical or *fixed* first point of Aries from which measurements were made, and also the *signs* of the zodiac as distinct from the *constellations*. But Alnath, being an actual star, viz.  $\alpha$  Arietis,<sup>2</sup> was in the *eighth* sphere; and the distance between its position and that of the first point of Aries at any time afforded a measure of the amount of precession. Mr Brae rightly re-

<sup>1</sup> This is doubtless quoted from some gloss upon Ptolemy, not from the work itself. The reference is right, for the "motus celi" are discussed in the *Almagest*, lib. i. c. 8.

<sup>2</sup> This star ( $\alpha$  Arietis) was on the supposed horn of the Ram, and hence its name; since *El-nâtih* signifies "the butter," and "El-nath" is "butting" or "pushing." See Ideler, *Die Bedeutung der Sternnamen*, p. 135.



marks that Tyrwhitt's readings in this passage are correct, and those of Mr Wright and Mr Morris (from the Harleian MS.) are incorrect.

It may be as well to add that a later refinement was to insert a crystalline sphere, to account for the precession; so that the order stood thus: seven spheres of planets; the eighth, of fixed stars; the ninth, or crystalline; the tenth, or *primum mobile*; and, beyond these, an empyrean or theological heaven, so to speak, due to no astronomical wants, but used to express the place of residence of celestial beings.<sup>1</sup> Hence the passage in Milton, iii. 481.

“They pass the planets seven, and pass the fix’d,  
And that crystalline sphere whose balance weighs  
The trepidation talk’d, and that first mov’d.”

i. e. They pass the seven planetary spheres; then the sphere of fixed stars; then the crystalline or transparent one, whose swaying motion or libration measures the amount of the precession and nutation so often talked of; and then, the sphere of the *primum mobile* itself. But Milton clearly himself believed in the Copernican system; see *Paradise Lost*, viii. 121—140, where the *primum mobile* is described in the lines—

“that swift  
Nocturnal and diurnal rhomb supposed,  
Invisible else above all stars, the wheel  
Of day and night.”

§ 18. 8. *compounded by 2 & 2*. This means that in the *best* astro-labes, *every* almucantarath for every degree of latitude was marked; as may be seen in Metius. In others, including the one given by Chaucer to his son, they were marked only for every other degree. See Part II, sect. 5, l. 2.

§ 19. 7. *cenyth*, as here used, has a totally different meaning from that of *senyth*, in l. 1 above. The *senyth* in l. 1 is what we still call the *senyth*; but the *cenyth* in l. 7 means the point of the horizon denoting the sun's place in azimuth. Contrary to what one might expect, the *latter* is the true original meaning, as the word *zenith* is corrupted from the root of the word which we now spell *azimuth*. The Arabic *as-samt* is a way or path; *al-samt*, a point of the horizon, and, secondly, an azimuthal circle. The plural of *al-samt* is *assumût*, whence *azimuth*. But *zenith* is a corruption of *semt*, from *samt al-ras*, the Arabic name of the vertex of heaven (*râs* meaning *a head*); and the qualifying *al-ras*, the most important part of the phrase, has been improperly dropped. So far from the reading *cenyth* being wrong here, it is most entirely right, and may be found in the same sense in Messahala. See p. 41, footnote. For *cenyth*, some late copies have *signet*, evidently taken from the

<sup>1</sup> Well expressed by Dante, *Parad.* xxx. 38—

“Noi semo usciti fuore  
Del maggior corpo al ciel ch'è pura luce.”

Dante, like Chaucer, makes the eighth sphere that of fixed stars, and the ninth the *primum mobile* or swiftest heaven (*ciel velocissimo*); *Parad.* xxvii. 99.



Latin word *signum*. They make the same mistake even in l. 10 of section 18.

§ 21. 4. *sterres fixes*, fixed stars; here the *s* again appears in a plural adjective of French derivation. In MSS. Ii. 3. 3 and Ii. 1. 13 in the Cambridge University Library, is an interesting list of the 49 stars most usually placed upon the Astrolabe, which I have printed in the Preface to this volume. The stars which are represented by the points of the tongues in Fig. 2 are the same as those in the diagram from which Fig. 2 is copied, the original of which is in MS. A. I have slightly altered the positions of the points of the tongues, to make them somewhat more correct. The following is the list of the stars there shewn; most of their names are written in the MS. Cf. footnote on p. 12.

*Within the Zodiac.* In *Aries*, Mirach, or  $\beta$  Andromedæ, shown by a short tongue above Aries; in *Taurus*, Algol, or  $\beta$  Persei, as marked; in *Libra*, Aliot or Alioth, i. e.  $\epsilon$  Ursæ Majoris (the third horse, next the cart, in Charles's Wain), as marked; also Alramech, Arcturus, or  $\alpha$  Boëtis, shewn by the tongue projecting above Libra; in *Scorpio*, Alpheta, Alphecca, or  $\alpha$  Coronæ Borealis, as marked; in *Sagittarius*, Raz Alhagus, or  $\alpha$  Ophiuchi, near Alpheta; in *Capricornus*, Altair or  $\alpha$  Aquilæ and Vega or  $\alpha$  Lyræ, as marked, whilst near Vega is the unmarked Arided, or  $\alpha$  Cygni; and in *Pisces*, Markab or  $\alpha$  Pegasi.

*Without the Zodiac.* In *Aries*, under *Oriens*, the slight projection marks  $\beta$  Ceti or Deneb Kaitos, the Whale's Tail, and the next curiously shaped projection (with side-tongues probably referring to other stars) means Batukaitos or Batnkaitos, the Whale's Belly, apparently  $\zeta$  Ceti; next come the long tongue for Menkar or  $\alpha$  Ceti, the Whale's Nose; the star Aldebaran or Bull's Eye,  $\alpha$  Tauri; Rigel or  $\beta$  Orionis, Orion's Foot; Alhabor or Sirius, the Dog-star, marked by a rude drawing of a dog's head, the star itself being at the tip of his tongue; then Algomeisa, Procyon, or  $\alpha$  Canis Minoris, marked by a tongue pointing to the left, whilst the long broad tongue pointing upwards is Regulus, Kalbalased, or  $\alpha$  Leonis; the small tongue above the letter I in the border is Alphard or Cor Hydræ. Above *Occidens*, in *Libra*, the first tongue is Algorab or  $\delta$  Corvi, and the next Spica Virginis or Azimech; close to the 8th degree of Scorpio is  $\alpha$  Libræ, and close to the beginning of Sagittarius is a small head, denoting the Scorpion, at the tip of the tongue of which is the bright Kalbalacrab or Antares. The last, a projection below the letter X, is Deneb Algebi or the Goat's Tail, i. e.  $\delta$  Capricorni.

7. That is, the little point at the end of each tongue of metal is technically called the "centre" of the star, and denotes its exact position.

9. The stars of the North are those to the North of the *zodiac*, not of the *equator*.

12. *Aldeberan*, &c.; the stars Aldebaran ( $\alpha$  Tauri) and Algomeisa ( $\alpha$  Canis Minoris) are called stars of the south, because they are to the south of the ecliptic; but as they are meanwhile (see Fig. 2) also to the north of the equator, they of course rise to the N. of the Eastern point of the horizon. The longitude of stars was always measured

along the ecliptic, which is denoted in Fig. 2 by the outermost circle of the metal ring on which the names of the signs are written.

In one of the tracts in MS. G (dated A.D. 1486), p. 30, we find "Aldebaran, in the first gre of *geminis* (*sic*), of the nature of Mars and Venus;" and "Algomeisa, canis minor, in the xvij gre of Cancer, of the nature of Mars and Mercury."

28. *Amiddes*, &c. Observe that the Ecliptic line, though in the midst of the celestial zodiac, a belt 12° broad, is on the outer edge of the zodiac as shewn in the astrolabe, which is only 6° broad and shews only the northern half of that belt. The "way of the sun" is elsewhere used of the sun's apparent diurnal path (see Part ii. sect. 30); but it here probably refers, as is more usual, to the annual path.

33. *streitnes*, narrowness, closeness, smallness of size. In Fig. 2, I have marked every degree in the southern half of the zodiac, but only every fifth degree in the northern, in order to avoid an appearance of crowding in so small a figure. In Chaucer's own astrolabe, every other degree was marked all round.

38. Here Chaucer gives at least three reasons for the name of "zodiac." The true one is the second, "for that the sterres that ben there fixed ben disposed in signes of bestes, or shape like bestes." But these imaginary shapes are very absurd and arbitrary.

48. Not only the influences here assigned to the signs, but others due to planets, may be found in "Porphyrii Philosophi introductio in Claudii Ptolomæi opus de affectibus astrorum," fol. Basileæ, n. d. p. 198. I here add a few extracts from the MS. in Trinity College, Cambridge (marked R. 15. 18), to shew the nature of the old astrology. I choose them with especial reference to Aries. The other signs are spoken of in a similar manner. "It is principally to be considered that the signes of hevyn haue theire strenght and propre significacioun vpon the membris of eny man; as, Aries hath respect to the hed, taurus to the neck, *geminis* (*sic*) the Armys, Cancer the brest, leo the hert, virgo the bowels, &c; as it shall shew in the Chapters folowyng.<sup>1</sup> Secundarily it is to be noted that plotholomee (*sic*) saith, that to touche with instrument of yroun while the mone is in the signe of the same membre, is for to be dred; let the surgen beware, and the letter of blode, let hym be aferd to touche that membre with yrene, in the which the mone shal be."—MS. G (see the preface); Tract C. p. 12.

"Thenne Aries hath respect to the hed; And this signe is hote and dry, fiery & colerik. Saturne hath ij witnes in Ariete, a triplicitate and a terme. Jubiter also hath ij, a triplicitate and a terme. Mars hath iij testimonials or iij fortitudis in Ariete, A hows, A face, and A terme. The sonne hath iij fortitudis in Ariete, *scilicet*, an exaltacioun, a triplicite, and a face. Venus hath ij testimonials, A terme and a face. Mercury hath one testymony, that is to sey, a terme. And luna

<sup>1</sup> From this same MS. I have copied the figure of a man shewn in Fig. 19. The copy was hurriedly made, and is by no means a good one; but it may serve to shew the manner of denoting the influence of the signs upon a man's body.

in Ariete hath no testimoniall. For the which it is to know, that the influens of the planetis may be fortyfied v maner of wayes. And these v maner be called v fortitudis of planetis, or testimonials, which be these : *domus*, *exaltacio*, *triplicitas*, *terminus*, and *facies*. *Domus* gevith to a planet v fortitudis ; And a planet in his hows is lyke a kyng in his hall, And in the high trone of his glorie. A planet in his *exaltacioun* is lyke a kyng when he is crowned. A planet in his *triplicite* is like a kyng in honour, Amonge his sencible people. A planet in his *terme* is As a mann amonges his kynnesmenn And fryndis. *Facies* gyvith to A planet that thyng the which rowme gyvith to a maistre. Wherefore *facies* gyvith only on fortitude, *Terminus* ij, *Triplicitas* iij, *Exaltacio* iiij, And *domus* v. And for the more clere declaracioun, the dignytes of planettis in signes be comprehendid in this figure ensuyng, &c.<sup>1</sup>—Same MS., Tract C. p. 13.

“The dygnytes of planetis in the signes, most speciall they be to be noted in iudicials. When the mone is *in Ariete*, it is not gode, but vtterly to be exshewed, both for seke And disesid, for to shafe theire hede or to boist in the cris or in the nek ; nor loke pou let no blode in the vayn of the hede. How-be-it, benyficiall it is to begynne euery worke that pou woldest bryng aboute sone. But that thyng that is stabill ought to be eschewed. In this signe it is necessary to dele with noble estatys And rich men, And for to go in-to A bayne [*bath*].<sup>2</sup>”—Same MS., Tract C. p. 14.

52. See Prologue, l. 68. As the zodiak is here called a part of the eighth sphere, so we have been before told that the equinoctial is the girdle of the ninth sphere ; see note above to sect. 17. l. 27.

54. *euen parties*, equal parts. That is, the equinoctial bisects the zodiac. But the northern half *looks* much smaller than the southern on the Astrolabe, owing to the manner in which the zodiac is there represented, viz. by projection on the plane of the equator.

PART II. § 1. *Rubric. hir cours.* The gender of the sun was feminine in Anglo-Saxon, and that of the moon masculine ; but in Chancer's time, the gender was very variable, owing to the influence of Latin and French.

§ 3. Between sections 2 and 3, a section is inserted in the late

<sup>1</sup> Here follows a table, shewing that, in *Aries*, the value of *Saturn* is 5, of *Jupiter* 5, &c. ; with the values of the planets in all the other sigs. The value 5, of Saturn, is obtained by adding a *triplicite* (value 3) to a *terme* (value 2), these being the “witnesses” of Saturne in Aries ; and so on throughout.

<sup>2</sup> So on p. 12 of another tract (D) in the same MS., we find—

*Aries calidum & succum ; bonum.*  
Nill capiti noceas, Aries cum luna refulget,  
De vena minuas & balnea tutius intres,  
Non tangas Aures, nec barbam radere debes.

Each of the signs is described in similar triplets, from the grammar of which I conclude that *Aries* is here put for *in Ariete*, in the first hexameter.

copies, which merely repeats section 1, and is clearly spurious. It does not appear at all in the best MSS. I quote it here from MS. L.

**“To knowe the degre of thyn sonne in thyn zodiak by the days in the bakside off the Astrolabye.**

[T]hanne iff þou wylte wete thatt / rekyn & knowe / qwyche is the day off the monyth thatt thou arte ynned, & ley thy rewle of thy astrolabye, that is to sey, the allydatha, vpon þe day in the kalendre off the Astrolabye, & he schall schewe the thy degree of the sonne.”

26. After “assendent,” the following additional paragraph occurs in MS. Bodley 619; fol. 21. It is worthy of notice, because the original of it appears in Messahala's treatise, with the title “De noticia stellarum incognitarum positarum in astrolabio.” The paragraph runs thus:—

“Nota. þat by þis conclusioun þou may knowe also where ben at þat same tyme alle opir sterres fixed þat ben sette in thin Astrolabie, and in what place of þe firmament; And also her arising in thy orizonte, and how longe þat thei wol ben aboue þe erthe wiþ þe Arke of þe nyght / And loke euermore how many degrees þou fynde eny sterre at þat tyme sitting vpon þin Almycanteras, and vp-on as many degrees sette þou þe reule vpon þe altitude in þe bordere; And by the mediacioun of þy eye through þe .2. smale holes shalt thou se þe same sterre by the same altitude aforseid, And so by this conclusioun may þou redely knowe whiche is oo sterre from a-noþer in the firmament / for as many as ben in the Astrolabie. For by þat same altitude shal thou se that same sterre, & non othir / for þere ne wolde non othir altitude accorde þerto.”

29. *Alhabor*; i. e. Sirius or the Dog-star, as is evident from the fact of its being represented by a dog's head on the Astrolabe; see also the table of stars on the Astrolabe, which give the declination 15° S, the latitude 39° S, and place the star in Cancer. It is also plainly described in the same table as being “in ore canis,” so that it is difficult to resist the conclusion of the identity of *Alhabor* and *Sirius*. Mr Brae, following later copies that have different readings of the numbers employed, identifies *Alhabor* with *Rigel* or  $\beta$  Orionis. This is impossible, from the fact that *Rigel* and *Alhabor* both occur in the diagrams and tables; see, for instance, fig. 2. It is true that *Rigel* was sometimes called *Algebar*, but *Alhabor* stands rather for the Arabic *El-abûr*. The Arabic name for the constellation Canis Major was *El-khelb el-akher*, “greater dog,” as distinguished from *El-khelb el-esger*, or “lesser dog;” and the star  $\alpha$  Canis Majoris was called *El-schira el-abûr*, from the former of which terms (*el-schira*) we get *Sirius*, and from the latter (*el-abûr*) we have *Alhabor*. See Ideler, über den Ursprung und die Bedeutung der Sternnamen, pp. 237, 256.

§ 4. “The houses [in astrology] have different powers. The strongest of all these is the first, which contains the part of the heaven about to rise: this is called the *ascendant*; and the point of the ecliptic which is just rising is called the *horoscope*.”—English Encyclopædia; art. Astrology.

20. In the English Cyclopædia, art. Astrology, a quotation is given from an astrological work, in reply to the question whether the "querent" should succeed as a cattle-dealer. It contains some words very similar to Chaucer's. "If the lord of the sixth be in quartile, or in opposition to the disposer of the part of Fortune, or the Moon, the querent cannot thrive by dealing in small cattle. The same if the lord of the sixth be afflicted either by Saturn, Mars, or the Dragon's Tail; or be found either retrograde, combust, cadent, or peregrine. [See l. 31.] The Dragon's Tail and Mars shew much loss therein by knaves and thieves, and ill bargains, &c.; and Saturn denotes much damage by the rot or murrain." The evil influence of the Dragon's Tail is treated of in the last chapter of "Hermetis Philosophi de revolutionibus nativitatum," fol. Basileæ; n. d.

30. "May see the ascendant." Cf. "Cum dominator ascendens viderit, res quæ occulta est secundum ascendentis naturam erit; quod si non videt, illud erit secundum naturam loci in quo ipse est dominator;" Cl. Ptolemæi *Centiloquium*; sect. 90.

38. *Face*. See note to Part I. sect. 21. l. 48. The late copies are very incorrect hereabouts.

§ 6. 9. Mr Brae well calls attention here to the absurd errors in the printed copies. Thynne has "in the 320 signe," and Speght "in the xxiii signe." The signs of the zodiac are only twelve, and the one opposite to the 1st is the 7th.

§ 8. I see no reason for supposing this proposition to be an interpolation, as Mr Brae suggests. Though *similar* to § 11, it is not *identical* with it. Moreover, it occurs in Messahala.

§ 9. 1. *the chapitre beforn*, i. e. a previous chapter, viz. in sect. 6. The expression supplies no argument for altering the order of the "conclusions."

4. *same manere*, i. e. a like manner. The "vulgar night" clearly means that the quantity of the "crepuscules" must be *subtracted* from the "arch of the night."

§ 13. 5. *cours*, course; *heiest cours*, highest point of the path. Late copies have *lyne*; for which Mr Brae suggested *degre*.

§ 14. 6. *but 2 degrees*. Suppose the sun's midday altitude is  $49^\circ$ , in latitude  $52^\circ$ . Then the co-latitude is  $38^\circ$ , and the sun's declination  $11^\circ$  North. This corresponds nearly (roughly speaking) to the 1st degrees of Taurus and Virgo. Which is right can "lightly" be known by the time of year, for the sun cannot be in Virgo, if the month be April. Compare sect. 15.

§ 17. This conclusion, as pointed out in the footnote, is not correct in theory, but can be made nearly so in practice, by taking the two altitudes *very near* the meridian. This is directly implied in the words "passeth any-thing the sowth westward," i. e. passes *ever so little* westward of the south line; cf. note below to 38. 9. Consequently, the first observation must also be taken very near the meridian.

24. *site*, situation. Late copies, *sight*.



§ 18. Instead of reckoning a star's right ascension by referring it to the equator, it was reckoned by observing the degree of the zodiac which southed along with it. This is expressed in the first "Table of fixed stars" (in the Preface) by the phrase "cum gradibus, quibus celum mediant;" the other co-ordinate of position was the star's declination from the equator, as in the modern method. The ancients also used the co-ordinates of longitude and latitude of a star, the longitude being reckoned along the ecliptic, and the latitude along great circles through the poles of the ecliptic; as appears from the second Table in the Preface.

§ 19. 6. *equinoxial*. This, as explained in the footnote, should be "ecliptik;" but I can find no MS. authority for the alteration.

§ 22. 13. *place*. Late copies *planet*; absurdly. Latitudes of several places are given in old Latin MSS. They are frequently incorrect.

§ 23. 3. The star A is shewn by the numbers to be the Pole-star, and is obviously the one to be observed in order to find the altitude of the Pole. What the star F is, is of no consequence. The numbers used in other copies are different, and much less satisfactory. That the star A is the Pole-star or some star near the pole in this "conclusion," is rendered probable also by the wording of the next "conclusion;" which extends the working of it to the case of any other star, provided it be a star that never sets.

§ 25. 18. When Chaucer says that the latitude of Oxford is "certain minutes less," he probably means no more than that the latitude of Oxford was 51 degrees and 50 minutes, as in the text. For I suspect the original reading of the passage made the sun's altitude 38 degrees only, and the latitude 52 degrees; indeed, the passage stands so in MSS. C and P, both good authorities. But he added the statement that the latitude of Oxford was less than 52 degrees. It is probable that, on second thoughts, he put in the number of *minutes*, and forgot to strike out the clause "I sey nat this," &c., which was no longer necessary. Minutes were seldom reckoned otherwise than by *tens*; "a few minutes less than 50" (say 47) is a refinement to which the ancients seldom attained. Hence the amount of 10 minutes is vaguely spoken of in l. 30 as "odde Minutes." Minutes were clearly not much considered. In the present case, we are assisted by Chaucer's express statement in sect. 22. l. 6.

§ 26. 8—11. It is singular that this sentence, obviously wanted, should appear only in one MS., and has, accordingly, been deficient in all previous editions. There can be no doubt about the genuineness of it, as it so exactly gives the right sense, and happily supplies the words "right orisonte" in l. 11; thus enabling the author to say, as in l. 20 he *does* say—"this *forseid* rihte orisonte."

15. *this figure*. Here occurs, in some of the MSS., a diagram representing a circle, i. e. a disc of the astrolabe, with straight lines drawn across it from left to right.

16. *Assensiouns in the rihte cercle*. This exactly answers to our modern "right ascension." We hence obtain the true origin of the



phrase. "Right ascension" was, originally, the ascension of stars at places situate *on the equator*, and was most conveniently measured along the equatorial circle, by observation of the times of transit of the various stars across the meridian. In other latitudes, the ascension of every degree of the *zodiac* could be easily tabulated by observing what degree of the equator came to the meridian with the said degree of the *zodiac*; see l. 18. It hence appears that, whilst persisting in using "longitudes" and reckoning along the *zodiac*, the ancients were obliged, in practice, to refer the degrees of longitude to the equator. The modern method of recognizing this necessity, and registering right ascensions as of more importance than longitudes, is a great improvement. The ancients were restrained from it by their unnecessary reverence for the *zodiac*. Cf. Ptolemy's *Almagest*, lib. i. c. xiii.

§ 29. Chaucer omits to say that the experiment should be made when the sun is very nearly on the meridian. Otherwise, the confusion of the azimuth with the hour-angle might cause a considerable error.

§ 30. That the phrase "wey of the sonne" really means the sun's apparent *diurnal* course in this conclusion, may be further seen by consulting the Latin of Messahala. Mr Brae objects to this; but I see no limit to the planet's position in the words of the conclusion. Cf. the Critical Note.

§ 31. In my footnote, I have used the expression "it does not mean, as it should, the zenith point." I mean—"as, according to our modern ideas, it should;"—for the derivation of *zenith* shews that the meaning used in this proposition is the older meaning of the two. See note above to i. 19. 7.

5. 24 *parties*. These 24 parts were suggested by the 24 hours of the day. The "32 parts" used by "shipmen" are due to the continual halving of angles. Thus, the four cardinal points have points half-way between them, making eight points; between which, we can insert eight more, making sixteen; and between these, sixteen more, making thirty-two. Hence the 32 points of the compass.

§ 33. 5. We should probably insert *or south* after the word *north*. Cf. the Critical Note.

§ 34. 3. That "vpon the mones side" means nearly in the same azimuth as the moon is apparent from l. 11 below, where Chaucer says that some treatises make no exception even if the star is *not* quite in the same azimuth. This was certainly a rough mode of observation.

§ 35. 9. *riht side*, East side. See i. 6. 1.

18. *Episicle*, epicycle. To account for the planetary motions, epicycles were invented. The moon, for instance, was supposed to revolve round a *moving* centre, which centre itself moved round the earth in a perfect circle. This came a little nearer to the true motion in some instances, but was hopelessly wrong, and nothing could be made of it, even when a *second* epicycle, revolving about a centre which moved in the *first* epicycle, was superadded. All that Chaucer says here is, that, whilst the centre of the moon's epicycle had a direct

motion, the moon's motion in the epicycle itself was a reverse one, unlike that of the other planetary bodies. The subject is hardly worth further discussion, so I merely refer the reader to the *Almagest*, lib. iv. c. 5; and lib. ix. c. 5.

§ 36. The "equations of houses" means the dividing of the sphere into *equal* portions, and the right numbering of those portions or houses. The most important house was the first, or ascendent, just rising; the next in importance was the tenth, which was just coming on the meridian; then come the seventh or descendent, just about to set, and the fourth, just coming to the line of midnight. The next in importance were the *succedents*, or houses immediately following these, viz. the second, the eleventh, the eighth, and the fifth. See *Succedent* in the Glossary.

§ 37. 17. *thise 3 howsez*. That is, the nadirs of the 2nd, 3rd, and 4th houses give the houses that "follow," i. e. the 8th, 9th, and 10th. The word "follow" here seems to refer, not to position, but to the order in which the houses may most conveniently be found. Chaucer omits to add that the beginnings of the 5th and 6th houses can be found in a similar way, because it is sufficiently evident. See the original in *Messahala*.

§ 38. 1. *for warpyng, the brodere the better*. This may mean, either (1) to prevent warpyng, the thicker the better; or (2) to prevent the errors arising from warping (because of warping) the larger the better. I believe the latter to be the true interpretation; for it is better thus to guard against possible errors than to make the plate very thick and, at the same time, small. Besides which the usual meaning of *brodere* is *wider, larger, more ample*. Indeed, we find the very expression "*non sit tamen nimis parvus*" in the 4th section of the *Practica Chilindri* of John Hoveden, published by the Chaucer Society; which see.

7. *fro the centre*, i. e. sticking up above the centre, the length of the wire being equal to a fourth of the diameter, or half the radius, of the circle. This proportion would do for many days in the year; but in the summer time, the pin would bear to be rather longer. Still, we need not alter the text. Cf. the Critical Note.

9. *any-thing*, i. e. ever so little; so *ony-thing* in l. 12.

§ 39. Though MS. A. is rather corrupt here, there is little doubt about the corrections to be made. See the Critical Notes.

19. That is, the latitude, or breadth, of a climate, or belt, is measured along a line which goes from North to South as far as the earth extends; so that the latitude of the *first* climate, for example, is measured from the beginning of it to the end of the same, in a due northerly direction. Other authors, he explains, reckoned the latitude of a climate always from the equinoxial line, instead of from the parallel of latitude which terminated the climate immediately to the south of it. Thus the latitude of the fourth climate might mean, either the breadth of that belt *itself*, or the *whole* breadth from the equator to the Northern limit of that climate. The MS. E. 2 in St John's College, Cambridge,

contains (besides Chaucer's "Astrolabe") a Latin treatise entitled "*De septem climatibus expositio*." We find mention of the "climates" also in MS. Camb. II. 3. 3, fol. 33 *b*, where a diagram appears representing a hemisphere, divided by parallels of latitude into 9 climates or belts, which, beginning from the equator, are as follows. 1. Inhabitable propter Calorem. 2. Primum clima dia Meroes. 3. Secundum clima dya cienes. 4. Tertium clima di' alexandrios. 5. Quartum clima dia rodos. 6. Quintum clima dia romes. 7. Sextum clima dia boristenes. 8. Septimum clima dia rifeos. 9. Inhabitable. This agrees with the list in the footnote on p. 48.

There is a passage in Mandeville which well illustrates Chaucer; I quote the part of it which more immediately relates to the Climates. "For the Superficialtee of the Erthe is departed in 7 parties, for the 7 Planetes; and the parties ben clept Clymates. And our parties be not of the 7 Clymates: for they ben descendynge toward the West. And also these yles of Ynde, which beth evene azenst us, beth noght reckned in the Climates: for thei ben azenst us, that ben in the lowe Contree. And the 7 Clymates stretchen hem, envyrounyng the World," &c. Mandeville's *Voiage*, ed. Halliwell, p. 186. See also Ptolemy's *Almagest*, lib. ii.

As regards the longitudes of towns, it may be observed that in MS. F. 25 in St John's College, Cambridge, the longitudes of Rome, Cordova, London, Paris, and Malta, are said to be  $34^{\circ} 24'$ ,  $9^{\circ} 30'$ ,  $19^{\circ}$ ,  $20^{\circ}$ , and  $38^{\circ}$  respectively. These do not well agree together, but they suggest a reckoning from a meridian situated some  $20^{\circ}$  W. from that of Greenwich. Chaucer says nothing as to what meridian was used for reckoning longitudes from; and Messahala is but vague.

§ 40. It is possible that this conclusion was really intended to belong to the fourth part of the treatise, and was written by way of instalment. See the Prologue, II. 63—67. It is curious that in all the best MSS. (P excepted) the last sentence should be incomplete.

12. This sentence is very awkward. It seems to mean—"and then set I the point of F upward in the same sign, because that the latitude was north, upon the latitude of Venus; that is to say, (I set it upward) keeping it in the 6th degree of Capricorn." *Upward* means inward, i. e. towards the centre or towards the north; the opposite being expressed by southward, or outward, or toward the border, as in l. 46 below. *Upon the latitude of Venus* means that the point F of the compass was set upon the second degree of latitude, so that the space between the legs of the compass became equal to 2 degrees, as said in l. 15. Lastly, the words *that is to seyn, in the 6 degree*, &c., are an explanation of the vaguer expression *in the same signe*. The repetition of the words *that is to seyn*, &c. (II. 11 and 14), is intended to draw attention to the necessity of keeping *both* legs of the compass in the same degree of longitude.

55. Possibly Chaucer left the sentence incomplete. The words "thou shalt do well enough" may easily have been added by another hand to bring the sentence to an apparent, though not wholly satisfac-

tory, conclusion. *Colophon*. This colophon is written (in a later hand) in MS. A at the bottom of the page, a part of which, after the words "howre after howre," is left blank.

41—43. I have mended the text as well as I could by words, &c., inserted between square brackets. Nearly all the emendations rest on authority; see the Critical Notes. The text is not a good one, but I do not see why these sections may not have been written by Chaucer. For a definition of the terms "*Umbra Extensa*" and "*Umbra Versa*," see sections 5 and 6 of the *Practica Chilindri* of John Hoveden, published by the Chaucer Society. The *umbra extensa* or *recta* is the shadow cast on a plain by any perfectly upright object; but the restriction is commonly introduced, that the altitude of the sun shall exceed 45°. The *umbra versa* is the shadow cast *perpendicularly* downwards along a wall by a style which projects from the wall at right angles to it; the restriction is commonly introduced, that the sun's altitude shall be less than 45°. The *umbra versa* is the one which appeared on the "chylindre"; hence John de Hoveden explains how to calculate the altitude of an object by it.

44. This article and the next may possibly be Chaucer's. It is well-known that he speaks of "collect" and "expans yeres" and "rotes" in the Frankeleines Tale; Cant. Ta. l. 11587; the note upon which in the glossary to Urry's Chaucer may be found also in Tyrwhitt's Glossary, s. v. *Expans*; but it is worth while to repeat it here. "In this and the following verses, the Poet describes the Alphonsine Astronomical Tables by the several parts of them, wherein some technical terms occur, which were used by the old astronomers, and continued by the compilers of those tables. *Collect* years are certain sums of years, with the motions of the heavenly bodies corresponding to them, as of 20, 40, 60, &c., disposed into tables; and *Expans* years are the single years, with the motions of the heavenly bodies answering to them, beginning at 1, and continued on to the smallest *Collect* sum, as 20. A *Root*, or *Radix*, is any certain time taken at pleasure, from which, as an era, the celestial motions are to be computed. By 'proporcionel convenientes' [C. T. l. 11590] are meant the Tables of Proportional parts." To which Tyrwhitt adds, from Chambers's Encyclopædia, with reference to C. T. l. 11589, that "*Argument* in astronomy is an arc whereby we seek another unknown are proportional to [or rather, dependent upon] the first." See also *Entere* in the Glossary.

Tables of mean motions of the Sun are given in Ptolemy's *Almagest*, lib. iii. c. 2; of the Moon, lib. iv. c. 3; of the Planets, lib. viii. c. 3; also in MS. II. 3. 3, fol. 88b, &c.

41a—42b. The fact that these articles are mere repetitions of sections 41—43 is almost conclusive against their genuineness. I do not suppose that sect. 46 is Chaucer's either, but it is added for the sake of completeness.

## Astrolabium Messchalle.

[MS. Camb. Univ. Lib. II. 3. 3, p. 74.]

Nomina instrumentorum sunt hec. <sup>1</sup>Primum est armilla suspensoria ad capiendam altitudinem, et dicitur arabice alhahucia. <sup>2</sup>Secundum est alhabor, id est, ansa que iungitur ei. <sup>3</sup>Postea mater, <sup>4</sup>rotula scilicet, in se continens omnes tabulas cum aranea, cui coniungitur margolabrum scilicet in .360. gradus diuisum. <sup>4</sup>Tabule autem ab hac contente figurantur tribus circulis quorum minor est circulus cancri, et medius est circulus equinoctialis, et maximus <sup>8</sup>circulus capricorni. <sup>5</sup>Postea circulus almucantherath, qui sunt circuli in medietate superiori descripti quorum quidam sunt integri, quidam apparent imperfecti; quibus prior est orizon, et diuidit duo emisperia. Centrum autem interioris almucantherath cenit capitum <sup>12</sup>nominatur. <sup>6</sup>Deinde est azimuth, qui sunt partes circulorum almucantherath intersecantes. <sup>7</sup>Post quas sunt hore, in medietate inferiori descripte. In[ter] horas .2. sunt crepusculorum linee. <sup>8</sup>Postea linea medii celi, que est linea descendens ab armilla per centrum in <sup>16</sup>oppositam partem astrolabii, cuius medietas a centro in armillam dicitur linea meridiei; et alia dicitur angulus terre et medie noctis. <sup>9</sup>Post hec et sequitur alhanthabuth, id est aranea, in quo sunt signa cum zodiaco constituta, stelle quoque fixe, in quo via dicitur esse <sup>20</sup>solis; et quicquid fuerit infra motum capitis arietis et libre, ex hoc zodiaco, septentrionale; quod autem extra, meridianum. <sup>10</sup>Sequitur

<sup>1</sup> Part I. § 1.

<sup>2</sup> Pt I. § 2.

<sup>3</sup> Pt I. §§ 3, 16.

<sup>4</sup> Pt I. § 17.

<sup>5</sup> Pt I. § 18.

<sup>6</sup> Pt I. § 19.

<sup>7</sup> Pt I. § 20.

<sup>8</sup> Cf. Pt I. §§ 4, 15.

<sup>9</sup> Pt I. § 21.

<sup>10</sup> Pt I. § 23.



almuri, quod ostensor dicitur latine, denticulus scilicet, extra circulum capricorni; in alhanthabuth relictus deinde almenath, id est, foramen quod est in medio rethis; <sup>1</sup>in quo est axis retinens tabulas <sup>24</sup>climatum, in quam intrat alphaeraz, id est, equus restringens araneam cum rotula, quasi cuneus. Et in illa parte matris sunt .2. circuli equationis solis exterius, quorum <sup>2</sup>unus continet numerum dierum anni .365., <sup>3</sup>et scribentur sub eo nomina mensium. <sup>4</sup>Et alius signorum 28 gradus, <sup>5</sup>et infra eum scribuntur nomina signorum. <sup>6</sup>Postea quarta capiende altitudinis. Postea quadrans, cuius latera in .12. puncta diuisa sunt. <sup>7</sup>Sequitur regula, que circumuoluitur in dorso astrolabii, in qua sunt tabule perforate, ad capiendum altitudinem solis <sup>32</sup>in die, stellarum in nocte.

<sup>8</sup>Cum uolueris scire gradum solis, pone regulam super diem mensis presentis, et gradus a summitate eius tactus erit gradus solis, qui cuius signi sit uidebis, et eum ex alia parte nota in zodiaco in <sup>36</sup>rethi. Notabis et nadayz eius, quod est simul gradus .7. signi. Diem quoque mensis per gradum solis inuenies; posita enim regula super gradum solis diem quesitum ostendet.

#### <sup>9</sup>De altitudine solis et stellarum inuenienda capitulum. 40

Cum vis altitudinem solis scire, Suspende astrolabium de manu tua dextra per eius armillam, et sinistro tuo latere soli opposito, sublena vel deprime regulam, donec radius solis per utriusque tabule foramen transeat; quo facto, vide quot gradus a linea orientali <sup>44</sup>eleuatur regula, et est solis altitudo; similiter facies in nocte, per stellas fixas.

<sup>10</sup>Si autem vis scire certitudinem hore et etiam ascendentis, pone gradum solis super almucantherath altitudinis, ex parte orientis, si <sup>48</sup>altitudo sit ante meridiem; aut ex parte occidentis, si altitudo sit accepta post medium diem; et super quam horam ceciderit nadayz gradus solis erit hora presens, et signum quod fuit ex parte orizontis orientalis, est oriens, id est, ascendens; quod uero in occidentali, <sup>52</sup>

<sup>1</sup> Pt I. § 14.<sup>2</sup> Pt I. § 9.<sup>3</sup> Pt I. § 10.<sup>4</sup> Pt I. § 7.<sup>5</sup> Pt I. § 8.<sup>6</sup> Pt I. § 12.<sup>7</sup> Pt I. § 13.<sup>8</sup> Pt II. § 1.<sup>9</sup> Pt II. § 2.<sup>10</sup> Pt II. § 3.



occidens. Quod uero ceciderit in linea medii celi est in medio celo, et eius nadays angulus terre.

<sup>1</sup>Et si ceciderit inter duo almuchantherath, vide differentiam  
 56 numeri inter almuchantherath precedentem et altitudinem solis, et  
 denomina differentiam de numero longitudinis almuchantherath, quod  
 est .6., si almuchantherath continet .6. gradus et .6.; quod si almuchan-  
 therath contineat .3. gradus et .3., denomina partem illorum de .3.; et  
 60 sic de aliis. Postea scito motum almuri ab initio primi almuchan-  
 thanth usque ad initium secundi de gradibus marginis; et pone  
 super illorum partem denominatam ab eis, secundum proportionem  
 differentie dicte, ex .6. vel de .3. gradibus; et tunc habebis certum  
 64 gradum inter duo almuchantherath; et tunc considera eas horas, &c.,  
 sicut dictum est superius. Si illud idem in nocte scire desideras,  
 accipe altitudinem alicuius stelle, in alhanthabuth descripte, que  
 transit ex parte orientis uel occidentis; et pone cacumen illius stelle  
 68 in almucantherath sue altitudinis, et gradus solis indicabit tibi horas  
 noctis, sicut nadayz eius diei; de aliis fac omnibus sicut dictum est  
 in superioribus.

### De crepusculo uespertino et matutino.

72 Cum uolueris scire finem crepusculi uespertini et initium  
 matutini, vide cum uenerit gradus solis ad lineam crepusculi occi-  
 dentalis; tunc est finis eius; et cum ad orientalem, est initium  
 crepusculi.

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### <sup>2</sup>Aliter idem.

Uel sic; vide quum nadayz solis uenerit ad .18. gradum  
 almuchantherath in oriente, erit finis crepusculi uespertini; et cum  
 uenerit ad .18. gradum almuchanthanth in occidente, est initium  
 80 crepusculi matutini; et hec est leuis.

### <sup>3</sup>De inuencione arcus diurni et nocturni: Rubrica.

Si vis scire arcum diei et noctis, pone locum solis, id est, gradum  
 in quo est super primum almucantherath; et nota locum almuri  
 84 inter gradus limbi; post hec moue gradum solis usque ad occidentem;

<sup>1</sup> Pt II. § 5.<sup>2</sup> Pt II. § 6.<sup>3</sup> Pt II. § 7.

et nota etiam locum eiusdem in ipsis gradibus; et motus eius ab una nota in aliam est arcus diei; reliqua uero pars circuli est arcus noctis, quia illa duo continebunt .360. gradus, que est quantitas diei et noctis; similiter facies de stellis fixis, si uolueris scire earum 88 moram super terram.

### **<sup>1</sup>De quantitate horarum diei inequalium.**

Si uolueris quantitatem horarum inequalium diei scire, diuide arcum diei per .12., et habebis numerum graduum hore diurne; 92 quem si subtrahis a .30. remanebit numerus graduum hore nocturne, quia hora inequalis nocturna cum hora inequali diurna facit .30. gradus in omni die, qui sunt due hore equales.

Si horas diei uolueris querere equales, diuide arcum diei per .15., 96 et habebis numerum horarum equalium; similiter in nocte.

### **De parte hore partita inuenienda per almuri capitulum.**

Cum transierit pars hore, et uolueris scire quota pars sit hore, scito numerum graduum in labro ab inicio hore illius in almuri; et 100 quomodo ille numerus se habebit ad numerum totius hore, sic pars transacta se habebit ad totam horam.

### **<sup>2</sup>De numero horarum diei equalium preteritarum inueniendo capitulum.** 104

Si uolueris scire quot hore equales transierunt de die, accipe gradum solis, et pone super almuchanthanth altitudinis et signa locum almuri in gradibus. Postea uolue retro gradum solis usque ad primum gradum almuchantherath in oriente; et secundo nota eius- 108 dem locum; post hec diuide gradus qui sunt inter .2. notas per .15., et habebis horas equales. Similiter facies de nocte; postquam enim inueneris horam inequalem per gradum et altitudinem alicuius stelle, signato loco almuri, reduces gradum solis ad orizontem occidentalem, 112 et notabis iterum locum almuri. Spacium inter hec duo loca diuides, sicut prius, per .15. scilicet, et inuenies. Eodem modo scies quot sint hore equales inter meridiem et quemlibet punctum alium, et quodlibet instans. 116

<sup>1</sup> Pt II. § 10.

<sup>2</sup> Pt II. § 11.

**<sup>1</sup>De conuersione horarum inequalium in horas equales : Rubrica.**

Si uolueris reducere horas inequales in horas equales, scito gradus horarum inequalium, quot sint; et diuide eos per .15., et 120 habebis horas equales; similiter facies de horis equalibus.

**<sup>2</sup>De altitudine solis in meridie habenda capitulum.**

Si uolueris scire altitudinem solis in media die, quod est initium recessionis, pone gradum solis super lineam medii celi; et numerus 124 graduum almucantherath a loco solis in orizontem est altitudo eiusdem medie diei. Similiter fac cum stellis fixis.

**Inuencio hore diei per allidadam : capitulum.**

Si per allidadam horariam uis scire horam diei naturalem, pone 128 allidadam super altitudinem medie diei illius in dorso astrolabii suspensi; et uerte dorsum ad solem tam diu donec umbra vnus-cuiusque anguli superioris pinnule cadat in allidada, quelibet in directo sui lateris; et vbi occiderit in diuisionibus erit hora quesita.

**132 De eodem inueniendo per lineas.**

Item per allidadam in dorso et lineas horarum inter latera gnomonis, si sint posite ut in quadrante, sic. Super altitudinem solis meridianam in illa die pone allidadam; et nota vbi meridianus 136 circulus, id est, linea finis .6. hore, secuerit lineam fiducie ipsius allidade; et pone ibi signum de incausto; et illud signum valet situationem margarite in quadrante; deinde accipe altitudinem solis in quacunque hora vis, et illud signum inter horas dabit horam 140 naturalem, ut in quadrante.

**<sup>3</sup>Capitulum preambulum ad quedam sequencia.**

Amplius scito quod circulus signorum diuiditur in .2. semicirculos, quorum vnus est a capite capricorni in caput cancri, et alius 144 a capite cancri in caput capricorni; et caput capricorni est solsticium

<sup>1</sup> Pt II. § 8.<sup>2</sup> Pt II. § 13.<sup>3</sup> Pt II. § 16.

hyemale, caput caneri estiuale. Scito et quod omnis duo equidistantes gradus ab aliquo horum solsticiorum sunt vnus declinacionis versus septentrionalem vel meridiem; et dies eorum vel noctes sunt equales, et umbre et altitudines in media die sunt equales. 148

### **<sup>1</sup>De gradu solis ignoto per rethe habendo.**

Si volueris cognoscere gradum solis ignotum, pone notam super altitudinem medie diei, quam sumpsisti prius per regulam in dorso astrolabii; deinde uolue rethe, cadentque duo gradus super ipsam 152 notam; quorum vnum scies esse gradum solis per signum mensis cuius fuerit dies.

### **<sup>2</sup>Quis dies cui diei sit equalis.**

Si volueris scire que dies cui diei sit equalis, scies hoc per 156 gradum equedistantem a solsticiis, quia eorum dies sunt equales, sicut dictum est superius.

### **<sup>3</sup>De Inuencione gradus stelle cum quo celum mediat.**

Si uolueris scire cum quo gradu uenit stella aliqua ad medium 160 diem, uel oritur; pone stellam super lineam medie diei, quia gradus qui cecidit super eandem lineam est gradus quesitus; similiter fac ad lineam orientalem et occidentalem. Gradum uero longitudinis habebis per filum positum super polum zodiaci, per totam declina- 164 cionem inuentum.

### **<sup>4</sup>De altitudine cenith solis habendi.**

Si uolueris cenith solis scire, accipe altitudinem eius hora qua uolueris hoc scire, et pone gradum solis super almucanthanth alti- 168 tudinis in parte qua fuerit, sicut facis ad inuentionem horarum. Post hec, accipe quid congruit gradui solis de azimuth, et super quem gradum sit cenith de quarta que opponitur; et necesse est ut hec quarta sit meridiana orientalis, uel septentrionalis orientalis; aut 172 occidentalis meridiana, uel septentrionalis occidentalis; et similiter facies de stellis fixis per earum altitudines.

<sup>1</sup> Pt II. § 14.

<sup>2</sup> Pt II. § 15.

<sup>3</sup> Cf. Pt II. § 18.

<sup>4</sup> Pt II. § 33.

**<sup>1</sup>De cenith ortus solis habendo, et aliorum planetarum.**

176 Et si uolueris scire cenith ortus solis, vel alicuius stelle fixe, pone gradum solis uel stellam super orizontem orientalem, et aspice quid sibi accidat de azimuth, similiter quam sit ortus; et hoc est cenith ortus, et super simile eius erit occasus in simili eius quarta, siue 180 orientalis, siue meridionalis fuerit.

**<sup>2</sup>De quatuor plagis mundi: Rubrica.**

Ad habendas quatuor plagas mundi veraciter, accipe altitudinem solis ut supra, et vide in quota quarta sit; deinde vide in qua 184 altitudine ipse gradus solis sit inter lineas azimuth in principio quarte orientalis, que incipit a coluro septentrionali siue a medie noctis linea, a qua incipies computare; et quotus fuerit numerus, tantum sume in dorso astrolabii, ab ipso coluro uersus armillam, pro 188 cedendum per orizontem, si est ante meridiem, vel per occidentem, si est post meridiem; et ubi numerus idem finitur, ibi pone regulam; deinde astrolabium utraque manu tenens, sursum uersa eius posteriori superficie, diligenter te oppone soli, donec radius solis transeat per 192 ambo foramina; tunc caute illud pone super terram, ut non moueatur ad aliquam partem; habebis quatuor lineas in centro astrolabii concurrentes, quatuor mundi plagas directe oppositas indicantes, scilicet orientalem, occidentalem, &c.; similiter operabis in nocte per 196 stellam fixam. Vel locata iam regula in dorso astrolabii, sursum uersa eius facie, eque distanter orizonti ut proximo dictum est, fac umbram amborum angularum pinnule cadere super .2. latera regule, scilicet, dextram umbram super latus dextrum, et sinistram umbram 200 super sinistrum latus; et statim habebis quatuor lineas et quatuor plagas mundi predictas.

**<sup>3</sup>De declinacione cuiuslibet gradus habenda.**

Si scire uolueris declinacionem cuiuslibet gradus signorum, pone 204 super lineam medii celi uel diei, et scito eius altitudinem ab oriente; postea scito altitudinem capitis arietis et libre in eadem linea; deinde scito altitudinem utramque, et differentia ipsarum altitudinum

<sup>1</sup> Cf. Pt II. § 31.<sup>2</sup> Pt II. § 29.<sup>3</sup> Pt II. § 20.

est declinatio eiusdem gradus ab equinoctiali linea. Si autem gradus signi fuerit septentrionalis, est declinacio septentrionalis; si meridiana, meridiana. Scito etiam quod gradus signorum septentrionalium sunt altiores equinoctio, quod est in capite arietis et eius opposito; et meridionalium inferiores, secundum declinationes eorum ab eo. Maior autem declinacio est in capite caneri et capricorni: 212 eodem modo inuenies declinacionem stellarum fixarum.

### **<sup>1</sup>De altitudine poli vel latitudine regionis.**

Scito quod altitudo regionis sit latitudo cenith caputum<sup>2</sup> ab equinoctiali circulo uersus septentrionalem vel meridiem, que similis 216 est altitudini poli septentrionalis, et depressioni eius oppositi ab horizonte, que duo sunt in parte equales. Cum ergo latitudinem cuiusque regionis scire uolueris, altitudinem solis in media die considera, quam minues de .90., si fuerit sol in inicio arietis et libre, et 220 quod est residuum erit latitudo regionis; tunc enim motus solis erit in equinoctiali linea. Si uero in alio gradu fuerit sol, eiusdem gradus declinacionem considera per tabulam declinacionis solis, uel per regulas ante datas; quam minues de altitudine solis in medio 224 die, si fuerit septentrionalis; si uero meridionalis, adde illam; et habebis altitudinem inicii arietis in regione illa, quam subtrahes sicut predictum est a .90., et quod remanserit est distancia regionis ab equinoctiali linea. 228

### **De eodem, scilicet aliter, capitulum: Rubrica.**

Uel si uolueris accipere altitudinem cuiusuis stelle altiore, et eius elongacionem ab equinoctiali linea considera; cum qua fac ut supra dictum est. <sup>3</sup>Vel quere cuiusuis stelle non occidentis in eadem 232 regione altitudinem altiore et inferiorem, et utriusque insimiliter collecte tolle medietatem, que est altitudo poli in eadem regione.

### **<sup>4</sup>De noticia tabule almucantherat.**

Si uis scire ad quam latitudinem facta sit tabula almucantheralis, 236 uide in linea meridiana quot almucantherath sint in circulo equi-

<sup>1</sup> Pt II. § 25.      <sup>2</sup> cunū eius (*sic*); MS. Hh. 6. 8 *has caputum*; see l. 11.

<sup>3</sup> Pt II. § 24.

<sup>4</sup> Pt II. § 21.



noctiali usque ad cenith, vel ab axe ad orizontem in septentrione ; et  
super tantam latitudinem facta est tabula : altitudo uero arietis est  
240 tot graduum quot fuerint ab eodem circulo ad orizontem, vel a cenith  
ad axem.

### De horis inueniendis per tabulas latitudinis: Rubrica.

Cvm in aliquo regione, cuius latitudo in tabulis astrolabii non  
244 fuerit descripta, uolueris inuenire per illud astrolabium horas illas,  
regionis latitudinis et latitudinis maioris propinquioris sibi et  
minoris ibi descripte nota differentiam ; deinde proportionem illius  
differentie ad differentiam que est inter minorem latitudinem ibi  
248 descriptam et maiorem, inter quas uidelicet est latitudo regionis  
illius, memorie commenda. Postea uero accepta solis altitudine in  
eadem regione, quere horas per latitudinem minorem, et similiter per  
latitudinem maiorem, et harum horarum diuersarum differentie tolle  
252 partem proportionalem, secundum proportionem differentie superius  
sumptam ; quam partem addes horis minoris latitudinis, si fuerint  
pauciores horis maioris latitudinis, vel subtrahes ab eisdem, si fuerint  
plures ; et que tunc remanserint erunt hore illius regionis ; similiter  
256 facies in horis noctis et in aliis operibus.

### <sup>1</sup>De gradu solis ignoto habendo.

Cvm qualibet die gradum solis per alhanthabuth uolueris  
inuenire, altitudinem eius in media die considera, quam notabis in  
260 almucanthanth in meridiana linea ; tunc quartam circuli signorum in  
qua fuerit sol gira ;<sup>2</sup> et gradus qui continget notam altitudinis in  
media linea est gradus solis.

### De longitudine inter duas regiones habenda per eclypsim.

264 <sup>3</sup>Longitudo regionis ab alia est distancia meridiani circuli vnus  
a meridiano circulo alterius. Cumque uolueris scire longitudinem  
inter .2. regiones, considera inicium eclypsis lunaris, per quot horas  
equales distet a medio precedentis diei in utrisque regionibus.  
268 Deinde minue horas vnus regionis de horis alterius, et que reman-

<sup>1</sup> Pt II. § 14.

<sup>2</sup> Written giza ; but MS. Hh. 6. 8 has gira.

<sup>3</sup> Cf. Pt II. § 39. l. 11.

serint erunt hore longitudinis inter utrasque; multiplica ita ea in .15., et habebis quot gradus sit earum longitudo ab inuicem. Longitudines quarundam regionum, hoc est, elongationes circulorum earum meridianorum a meridiano circulo ultime regionis habitabilis in 272 occidente, et earum longitudines et distancias ab equinoctiali circulo notabimus in quadam tabula sufficienter.

### De eodem in miliaribus capitulum.

Si quot miliaria sint in[ter] .2. regiones a se inuicem distantes 276 noscere queris, longitudinem et latitudinem inter utrasque considera; deinde longitudinem in se ductam latitudini in se multiplicata aggrega, et collige; inde summe tolle radicem, et unicuique gradui ipsius radiceis et dimidio da .100. miliaria; et per tot [miliaria] distat vna regio ab alia. 280 Si autem earum latitudo fuerit eadem, fac cum gradu longitudinis tantum, sicut deberet fieri cum gradu radiceis. Si uero longitudo fuerit vna, fac cum latitudine tantum, et inuenies quod queris.

### <sup>1</sup>Scientia ascensionis signorum in circulo directo. 284

Si autem ascensiones signorum in circulo directo scire desideras, incipium cuiusuis signi super lineam meridianam pone, et locum almuri in margine nota; postea moue rethe donec finis signi cadat super lineam meridiei, et gradus quibus mouebitur almuri erunt 288 ascensiones eiusdem signi; et similiter facies ad quamlibet portionem circuli.

### <sup>2</sup>De ascensionibus signorum in circulo obliquo.

Ascensiones autem signorum in qualibet regione sic poteris 292 inuenire; moue rethe ab inicio signi usque ad finem eiusdem, et gradus quibus mouetur in margine almuri erunt ascensiones signorum in eadem regione; mouebis enim signum in orizontis parte orientali, ut scias eius ascensionem: vt autem scias eius moram in occasu, 296 mouebis illud in orizontis parte occidentali; ita etiam fiet in qualibet circuli p[or]tione. Gradibus eciam ascensionum diuisis per .15., et residuo pro horis fractibus (*sic*) computato, habebis horas equales, vel eis diuisis per numerum graduum hore inequalis, patebit per quot horas 300

<sup>1</sup> Pt II. § 27.

<sup>2</sup> Pt II. § 28.

naturales uel inequales, cum fractionibus, quodlibet signum uel planeta uel quelibet portio ascendat uel occidat in qualibet regione.

<sup>1</sup>**De noticia stellarum incognitarum positarum in astrolabio.**

- 304 Ut habeatis noticiam stellarum incognitarum que posite sunt in astrolabio, sume primo altitudinem alicuius stelle note, et pone eam in almucantherath, super similem altitudinem; postea vide stellam quam uolueris scire, super quantam altitudinem iaceat inter almu-  
308 cantherath, et in qua parte sit, scilicet, in oriente vel occidente; quo uiso, pone eam in dorso astrolabii super eandem altitudinem, et verte illud ad eandem plagam celi in qua accepisti stellam; et maior stella quam uides per foramina regule ipsa est quam queris.

312 **De noticia stellarum incognitarum non positarum in astrolabio.**

- Scire uolens gradum stelle ignote, in astrolabio non posite, uel planete, expecta donec ille planeta vel stella sit in meridie; deinde visa aliqua stella cuius locum pro certo scias et astrolabio insignite,  
316 secundum altitudinem eius rethe dispone, ponendo stellam inter almucantherath super similem altitudinem; et directo gradus signorum qui erit in linea medii celi erit stella de qua dubitas, et est longitudo eius nota; latitudo patet, computatis almucantherath a  
320 nota illius altitudinis usque ad equinoctialem. Potes eciam per occasum solis rethe tuum disponere, si nullam stellam cognoueris, et sic cognosces omnes stellas.

<sup>2</sup>**Ad sciendum in quo gradu signi luna sit: Rubrica.**

- 324 Cum in quo gradu signi luna<sup>3</sup> sit scire uolueris, altitudinem lune considera; et eam in almucantherath, in parte in qua fuerit, nota; deinde stellam aliquam in rethi constitutam super altitudinem suam in eadem hora cum altitudine lune acceptam, in parte qua fuerit,  
328 pone; et gradus circuli zodiaci qui ceciderit inter almucantherath super altitudinem lune, eritque gradus lune. Si autem apparuerit in die, idem facies cum altitudine illius et altitudine solis, Considera

<sup>1</sup> See *Additional Note* to Pt II. § 3. l. 26.

<sup>2</sup> Pt II. § 34.

<sup>3</sup> *Written* stella; but MS. Hh. 6. 8 *has* luna.

igitur cuius signi sit gradus. Idem poteris quoque eodem modo planetarum loca inuestigare, si eorum altitudinem in nocte poteris 332 notare.

### De loco lune inueniendo capitulum.

Cum in quo gradu sit luna scire desideras, quot dies habeat mensis lunaris in eadem die considera, quibus duplicatis, quod col- 336 lectum fuerit distribue per .5., dando cuilibet signo .5., et incipias a signo in quo fuerit sol; et ubi numerus finierit, in eodem signo est luna; et si remanserit, id est, infra .5., iam perambulauit luna .6. gradus.

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### <sup>1</sup>De locis planetarum inueniendis.

Loca planetarum poteris in alio modo inuestigare, et verius. Sume altitudinem planete quum est iuxta lineam medii celi, et serua eam. Item, sume ad eandem horam ascendens per aliquam stellarum 344 fixarum, et hoc serua eciam cum hora; posthec vide quum ille planeta incipiat descendere a linea medii celi, et sume eius altitudinem quum sit equalis altitudini prius sumpte ante lineam medii celi; et iterum in eadem hora sume ascendens et horam per aliquam 348 stellam fixam; deinde sume medium inter ascendens primum et secundum per almuri in limbo; et gradus qui ceciderit tunc super lineam medii celi, in illo est planeta.

### <sup>2</sup>De latitudine planetarum a via solis inuenienda.

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Scire uolens utrum planeta sit australis uel septentrionalis in via solis, considera utrum altitudo quam sumpsisti quando erat prope lineam medii celi sit equalis altitudini gradus in quo est planeta, vel maior, vel minor; si enim est equalis, tunc directe est in via solis, 356 et nullam habet latitudinem; si autem altitudo planete sit maior quam gradus in quo est sol,<sup>3</sup> tunc planeta est septentrionalis a uia solis; si minor, tunc est australis; et tantum declinat a via solis quantum est maior vel minor.

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### <sup>4</sup>De directione et retrogradacione planetarum.

Utrum planeta sit retrogradus uel directus sic poteris inquirere; cuiusuis eorum altitudinem et altitudinem stelle quoque fixe memorie

<sup>1</sup> Pt II. § 17.<sup>2</sup> Pt II. § 30.<sup>3</sup> MS. planeta.<sup>4</sup> Pt II. § 35.

364 commenda; deinde post tereiam noctem uel quartam, in qua est sensibilis motus, cum stelle fuerint in eadem altitudine prime altitudini et altitudinem planete considera; quum, si fuerit minor sua altitudine prima, planeta est directus, si fuerit in parte orientali; et si  
 368 fuerit parte occidentali, retrogradus; et si secunda altitudo planete fuerit maior prima, est retrogradus, si hora accepte altitudinis fuerit ex parte orientis; et si fuerit ex parte occidentis, est directus. Oppositum autem de partibus noueris esse in luna.

372 <sup>1</sup>De equacione .12. domorum per astrolabium.

Cum .12. domos uolueris adequare, gradum ascendentem super lineam .8. hore pone; tunc gradus qui ceciderit super lineam medie noctis est inicium secunde domus. Deinde reducto gradu ascendentis  
 376 ad finem .10. hore, gradus inuentus super predictam lineam medie noctis est inicium .3. domus. Reducees quoque eundem gradum ad orientem orientalem, et erit eius nadayz in horizonte occidentis; gradus uero in eadem prenominata linea existens erit inicium .4.  
 380 domus. Pones etiam nadayz gradus ascendentis super finem .2. hore, et tunc predicta linea indicabit tibi inicium .5. domus. Si autem posueris idem nadayz super finem .4. hore, cadet inicium .6. domus super eandem lineam medie noctis. Inicium autem .7. domus  
 384 est nadayz ascendentis. Et inicium .8. nadayz secunde; principium .9<sup>e</sup> nadayz .3<sup>e</sup>; et .10<sup>e</sup> nadayz quarte. Principium vndecime nadayz .5<sup>e</sup> et .12. nadayz sexte.

<sup>2</sup>De eodem, scilicet aliter, capitulum.

388 Item, habito ascendente et aliis tribus angulis, pone regulam nouiter super rethe constitutam super gradum ascendentem, et gradus limbi inter eam et armillam uel punctum meridianum diuisi in .3. partes sunt ascensiones trium domorum ab ascendente in meridiem;  
 392 unde si posueris eam super primam .3. ab ascendente, habebis in zodiaco inicium .12. domus, et super secundam .3., inicium .11. domus. Eodem modo de gradibus limbi inter eam in ascendente et punctum in angulo terre facies, et habebis alias .3. domos, scilicet,

<sup>1</sup> Pt II. § 36.

<sup>2</sup> Pt II. § 37.

iniciu[m] secunde [et] .3. domus. Nadayz autem istarum sunt inicia 396  
sex oppositarum domorum.

### De aspectibus planetarum.

Si autem aspectus duorum planetarum, uel .2. graduum quorumlibet scire uolueris, pone eandem regulam super ipsos, et vide gradus 400 limbi intermedios, qui si fuerint .60., est aspectus sextilis; si .90., quartilis; si .120., trina; si .180., oppositionis; si nichil fuerit, coniuncti. Si autem citra hos terminos .5. minus fuerit, erit applicatio ad aspectum; si plus, separatio ab eodem. Secundum quosdam, 404 hiidem aspectus habentur ex gradibus equalibus. Secundum ptholomeum fit aliter, secundum gradus ascencionum, quemadmodum equatio domorum sic atque numeris. Radiationum alia dextra, alia sinistra; pro sinistra quidem radiatione, gradum planete super lineam 408 meridianam pone, atque almuri signa; deinde ipsum almuri motu dextro, pro radiatione exagonali, .60. gradus procedat; pro tetragonali, .90.; pro triangonali, .120.; et notetur medii celi gradus, ipse enim radiationis prime locus est; deinde gradum planete super almucan- 412 therath orientale pone, atque almuri signa, procedatque almuri motu dextro pro exagonali quidem .60., pro triangonali .120., pro tetragonali .90.; et notetur gradus ascendens, ipse enim radiationis secunde locus est; accipe itaque differentiam istarum duarum radiationum, et 416 serua eam. Deinde gradum medii celi hora acceptionis operis super meridianum pone, et signetur alius; procedatque motu dextro, donec planete gradus meridiano insideat, fiatque nota in almuri et capiatur numerorum .2. intersticiu[m], ducaturque in differentiam radiationum; 420 quodque inde producet per arcum lucis siue dici ipsius planete diuidatur, si super terram fuerit radiatio planete; si uero sub terra, per arcum noctis eius; et quod de diuisione exierit, erit radiationis equatio; que equatio minuatur a radiatione maiori, si fuerit planeta 424 inter .10. et .7. aut inter .4. et primum; addetur equatio super radiationem minorem; sicque post additionem [vel] subtractionem habebis radiationem quesitam; pro dextra autem radiatione inuenienda, erit processus almuri motu sinistro promouendus; cetera ut 428 supra.



### Scientia anni mundani vel naturalis.

Cum uolueris anni naturalis vel meridiani reuolutionem scire,  
 432 gradum ascendentis transacti anni pone super orizontem in oriente,  
 et locum almuri in margine signa ; posthec almuri ab eodem loco in  
 .93. gradu moue, et gradus qui ceciderit supra orizontem est gradus  
 ascendentis eiusdem anni. Si autem planetes fuerint anni, pro vno  
 436 quoque anno reduces almuri .93. gradus, et gradus existens in orizonte  
 in parte orientali erit ascendens ipsius anni.

### Quot hore equalis sunt inter annum preteritum et reuolutum.

Si autem uolueris scire quot hore equales sint inter annum pre-  
 440 teritum et annum reuolutum, gradum perambulationis almuri diuide  
 per .15., et numerus qui exierit de diuisione est numerus equalium  
 horarum inter utrumque annum exientium.

### De Gnomonis officio ; et primo, de vmbra altitudinis.

444 Quadrantis in astrolabio constituti .2. sunt latera, in .12. partes  
 equales diuisa, que uocantur puncta umbre. Sed notandum, quod  
 latus inferius uocatur umbra extensa ; et aliud latus vmbra uersa ;<sup>1</sup>  
 quia vnum representat puncta vmbre extense, et aliud uerse. Cum  
 448 ergo per hoc opus uolueris scire quot punctorum gnomonis fit umbra  
 uersa vel extensa, considera altitudinem solis ; si fuerint .45. graduum  
 est vnaqueque earum .12. punctorum equalium, scilicet, suo gnomoni.  
 Si autem fuit maior altitudo solis, tanget regula latus vmbre extense ;  
 452 et si diuiseris per ea .144., inuenies puncta uerse. Si uero solis alti-  
 tudo fuerit minor .45. graduum, tactus regule in vmbra uersa ostendet  
 eius puncta ; per que diuide, et habebis puncta umbre extense ; nam  
 si puncta umbre uerse multiplicaueris in puncta umbre extense,  
 456 prouenient ex multiplicatione .144., que proueniunt eciam ex multi-  
 plicatione .12. in semet ipsis, que sunt partes gnomonis vnius. Scien-  
 dum est eciam quod si in acceptione umbre per altitudinem ceciderit  
 regula in parte alicuius puncti, et uolueris eam denominare a toto,  
 460 moue regulam ab inicio illius puncti in partem ipsam, et vide quot

<sup>1</sup> Cf. Part I. § 12.

gradus moueatur regula, qui erunt gradus illius partis. Deinde moue regulam ab inicio illius partis in finem illius, et vide iterum quot gradus moueatur regula, qui erunt gradus totius; tanta proportionem se habet pars puncti ad totum punctum.

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### Inuencio altitudinis rerum per puncta vmbrę; capitulum.

Ut autem per umbram inuenias altitudinem, pone regulam supra puncta vmbrę extense, si fuerint pauciora .12., et tactus eius in quarta altitudinis ostendet altitudinem. Si autem fuerint plura .12., 468 diuide per ea .144., et inuenies puncta vmbrę verse; super que pone regulam, et tactus eius in quarta altitudinis ostendet tibi altitudinem. Si fuerit vmbrę .12. punctorum, est altitudo .45. Si uero cum predictis habueris fractiones, vide quid debeatur sibi de gradibus, ut 472 supra demonstratum est.

### Inuencio vmbrę meridiei per altitudinem.

Cum uolueris medie diei umbram scire, altitudinem solis in medio eiusdem diei quere, et per ea inuenies umbram, ut supra dictum est. 476

### Inuencio altitudinis rei accessibilis sequitur apponenda.

Cum eleuate rei altitudinem uolueris scire, regula[m] super .45. gradum in quarta altitudinis pone, et tam ante uel retro moue, donec per utriusque tabule foramen rei eleuate videas summitatem; tunc 480 quanta est longitudo a loco in quo fueris in radicem rei, eum additione stature tue a visu usque ad terram, tanta est procul dubio altitudo rei. <sup>1</sup>Si autem eius altitudinem, ita ut non remouearis a loco uno, uolueris inuenire, tam diu regulam subleua uel deprime quod per 484 utriusque foramen videas cacumen; tunc si regula ceciderit super puncta vmbrę extense, considera quanta proportionem se habeant .12. ad ista puncta; et tanta proportionem se habebit altitudo rei ad longitudinem inter te et ipsam, cum statura tua addita longitudini. Si 488 uero ceciderit super puncta vmbrę verse, quota pars erunt puncta de .12., tanta pars erit altitudo rei illius longitudinis inter se et eius radicem, coniuncta longitudini statura tua. Vnde notandum, quod

<sup>1</sup> Part II. § 41.

492 si fuerit regula super dyametrum quadrantis, est rei altitudo equalis longitudini, sibi addita statura. Et si fuerit super umbram extensam, est altitudo maior longitudine; si uero est super uersam, minor longitudine.

496 **De altitudine rei inaccessibilis mecienda capitulum.**

<sup>1</sup>Si uero rei inaccessibilis altitudo fuerit metienda, per utrumque regule foramen metiende rei summitatem respice, quia inspecta puncta quot sint meciuntur, que, exempli causa, dicantur .3., que in  
500 latere umbre quater continentur; quo pacto, retro ab eodem loco perge, ut mensurande rei cacumen iterum per utrumque foramen videas; quo viso, numerum punctorum umbre denuo vide, que scilicet erunt .2. puncta, que in .12. punctis continentur sexies; et  
504 interuallum stationum .12. pedum notabis esse. Hijs itaque pactis, minus continens ternarij, scilicet .4., a maiori continente binarij, scilicet .6., auferatur, et binarius qui pertransierit memorie commendetur; et interuallum .2. stationum, quia ex proportionibus  
508 remansit binarius, duplum altitudini inaccessibili pro certo habeatur. Est enim omnibus hec vniuersalis regula: subtractione continencium facta, si unum remanserit, interuallum stationum metientis erit altitudini rei equalis; si duo, duplum; si tria, triplum; et sic de  
512 ceteris intellige.

**De mensuracione plani: Rubrica.**

Si queris cum astrolabio metiri planiciem, per utrumque foramen limitem eius ex aduerso posito considera; post hec puncta umbre supra  
516 [quam] steterit regula ad .12. compara; et qualis fuerit comparatio punctorum ad .12., talis est comparatio stature tue ad planiciem.

**Explicit astrolabium messehalle.**

<sup>1</sup> Part II. § 42. As here expressed, it is suitable only for the *umbra versa*, because of the expression "retro perge"; but it may easily be altered so as to suit the *umbra recta*, which would give § 43 in Chaucer's treatise. Such an additional section does, in fact, appear in MS. Hh. 6. 48, in the margin.

## NOTES.

OBSERVE that I have only printed here the latter part of the treatise ; see the Preface, p. xxiv. The former part is longer and less to the point.

I add a few notes on some of the readings of the MSS. ; denoting MS. Ii. 3. 3 by the letter S, and MS. Hh. 6. 8 by T, to avoid confusion with the MSS. already mentioned.

L. 3. *alhabor* ; so in T. But written *alhaboz*, very plainly, in S ; indeed, the scribe clearly confused *r* with *z*, for he writes *nadayz* throughout for *nadayr*, or (as in l. 54) he writes *nadays* ; cf. footnote to l. 261.

14. inter T ; in S. So also in l. 276.

37. *nadayz* S ; *nadayr* T ; see note to l. 3.

126. *allidadam* ; i. e. the "rewle" for taking altitudes. See footnote on p. 7 ; and the first Additional Note to Part ii, sect. 3.

155. *Quis dies* (*sic*). But in the next line it is *que dies*.

247. inter *uxorem minorem latitudinem* S ; but T omits *uxorem*. The scribe seems to have been thinking of something else besides his work.

299. Perhaps we should read *fractionibus*, or *cum fractionibus*. The passage is wanting in T.

329. *opparuit* (*sic*) S ; *apparuerit* T.

342. *poteris* S ; *poterit* T.

461. *gradus moueatur* ; for *gradus*, T has *gradibus*.

500. *retro* T ; *recto* S.

506. *auferatur* T ; *auferantur* S.

516. *quam* ; supplied from T.

## GLOSSARIAL INDEX.

- ABATE, 2 *p. s. pr. subj.* subtract, ii. 10. 8.
- Abid, *imp. s.* wait, ii. 23. 9.
- Above, *prep.* above, ii. 45. 32.
- According, *pres. part.* agreeing, ii. 14. 5.
- Addyng, *sb.* (the) addition, ii. 41. 9.
- Aftur, *prep.* according to, *pr.* 57; later than, i. 21. 15; After, *pr.* 62.
- Agayn-ward, *adv.* backward, at the point of return, i. 17. 8.
- Agayns, *prep.* against, near to, ii. 23. 8.
- Al be it so þat, although, ii. 31. 6.
- Almenak, *sb.* almanac, *pr.* 62.  
The real origin of this word is still unknown; it is probably *not* of Arabic origin, and the fact of its beginning with *al* has probably led inquirers astray. The word occurs in a passage in a lost work of Porphyry, cited by Eusebius, de Præpar. Evangelica, iii. 4. ed. Gaisford. See Dozy, Glossaire des mots Espagnols dérivés de l'Arabe; 2nd ed. p. 154.
- Almicanteras, *sb. pl.* small circles of declination (in the celestial sphere), i. 18. 2; Almykanteras, i. 18. 7. Arabic *muqantarāt*, a solar quadrant, solar clock; *pl. muqantarāt*, circles parallel to the horizon; from *qantara*, he bent.
- Almury, *sb.* the "denticle" or tooth-like point or pointer situate on the Rete near the "head" of Capricorn, i. 23. 1. Arabic *al-muri*, the shewer, part. of the 4th or causal conjugation of *radā*, to see.
- Altitude, *sb.* the elevation of a celestial object above the horizon, measured along a vertical arc, *pr.* 56.
- Alyne, *adv.* in an exact line, ii. 38. 16.
- Amenuseth, *pr. s.* diminishes, becomes less, i. 21. 45. O.F. *amenuiser*, to become less, from *menut*, *menu*, minute, small.
- A-middes, in the midst of, i. 18. 3.
- Amydde, *adv.* amidst, in the middle, i. 4. 4.
- Angle, *sb.* angular distance (from the meridian), ii. 4. 28. "*Angle* of longitude (in astrology) is the angle which the circle of a star's longitude makes with the meridian, at the pole of the ecliptic."—Bailey. This is not explicit, as the pole of the ecliptic is seldom in the meridian; the pole of the equator and a circle of right ascension would answer better.
- Anni collecti, collected years, ii. 44. 16. When a table contains quantities denoting the amount of a planet's motion during round periods of years, such as 20, 40, or 60 years, such a change is entered under the heading *Anni Collecti*.

- Anni expansi, expanse years, ii. 44. 16. When a table contains quantities denoting the amount of a planet's motion during only a few years, viz. from 1 to 20 years, such changes are entered separately under the headings 1, 2, 3, &c. years, which are designated the expanse (or separate) years.
- Antartik, *adj.* southern, ii. 25. 7.
- Anything, *adv.* in any degree, at all, to any appreciable extent, ii. 17. 6; Anythyng, ii. 38. 9.
- Aperceyue, *v.* to perceive, ii. 35. 4.
- Arabyens *sb. pl.* Arabians; hence, in Arabyens, among the Arabians, i. 10. 5.
- Arch, ii. 9. 2. See Ark.
- Areisid, *pp.* raised, ii. 2. 5.
- Ariste, *sb.* arising, rising, ii. 12. 10.
- Ark, *sb.* arc, the angular distance apparently passed over by the sun during a day or a night, ii. 7. 7, 8; Arch, ii. 9. 2; *pl.* Arches, ii. 7. 9.
- Armholes, *sb. pl.* i. 21. 51.
- Artificial, *adj.* ii. 7. *rub.* The *day artificial* is the length of the day, from the moment of sunrise to that of sunset.
- Artik, *adj.* arctic, northern, ii. 22. 2.
- Ascendit, *pt. s.* ascended, rose above the horizon, ii. 40. 49; Ascendit, ii. 40. 28.
- Asceꝛsioun, *sb.* ascension, ii. 26. 4; *pl.* Assensiouns, ii. 26. 2. For the signs of *right* and *oblique ascension* see note on pp. 35, 36.
- Aspectys, *sb. pl.* aspects, ii. 4. 30. An *aspect* is the angular distance between two planets. The principal aspects are five, viz. conjunction, sextile, quartile, trine, and opposition, corresponding to the angular distances 0°, 60°, 90°, 120°, and 180° respectively.
- Assendent, *sb.* ascendent, ii. 3. 24. The "ascendent" is that point of the ecliptic which, at a given moment, is ascending above the horizon.
- Astrolabie, *sb.* an astrolabe, *pr.* 4; Astralabie, *pr.* 7; Astrolabie, *pr.* 46.
- Astrologie, *sb.* astrology, *pr.* 70.
- Astrologien, *sb.* astrologer, *or* rather, astronomer, *pr.* 50; *pl.* Astrologiens, *pr.* 42.
- Atones, *adv.* at once, at one and the same time, *pr.* 32.
- Auctours, *sb. pl.* authors, ii. 39. 22.
- Auenture, *sb.* chance; per auenture, peradventure, perchance, perhaps, ii. 12. 6.
- Augrym, *sb.* arithmetic, numeration, i. 7. 4; Augrim, Arabic numerals, i. 8. 4. O.F. *algorisme*, O.Sp. *alguarismo*, either from Gk. ἀριθμός, number, with the Arabic article (*al*) prefixed; or, as is much more probable, from *Al Khawāresmī*, the surname of an Arabian writer on algebra, the translation of whose work was the means of introducing the decimal notation into Europe in the 12th century. See the authorities for this in Dozy, *Glossaire des mots Espagnols dérivés de l'Arabe*.
- Avisely, *adv.* advisedly, carefully, ii. 29. 16.
- Awaite, *imp. s.* watch, ii. 35. 6.
- Azymuthz, *sb. pl.* azimuths, i. 19. 4, &c. Arabic *as-samt*, *pl. as-sumūt*, a way or path; *al-samt*, a point of the horizon, and hence, an *azimuth*, or arc extending from the zenith to the horizon. We find also *samt al-ras*, the vertex of heaven; hence *zenith*, a corruption of *semt* (*al-ras* being dropped).
- Bakhalf, *sb.* the back or flat side of the Astrolabe, i. 4. 1; ii. 1. 6.



- Bak-side, *sb.* the back of the Astrolabe, i. 15. 3.
- Bas, *sb.* base, ii. 41. 2; Baas, ii. 43. 2.
- Be, *prep.* by, ii. 41. 3.
- Befornseyd, *pp.* aforesaid, ii. 42b. 5.
- Behete, 1 *p. s. pr.* promise, *pr.* 73. A.S. *behāt*, a promise, *be-hetan*, to promise.
- Bestes, *sb. pl.* the "beasts" or animals in the zodiacal signs, i. 21. 37.
- Bisily, *adv.* diligently, ii. 38. 8.
- Bordure, *sb.* outer border or raised rim on the front side of the astrolabe, i. 4. 2; 16. 1; ii. 38. 2.
- Brede, *sb.* breadth, i. 21. 24.
- Brodere, *sb.* larger, ii. 38. 1.
- By, *prep.* with reference to, ii. 3. 48.
- Byforn, *prep.* before, ii. 3. 15.
- Byhestes, *sb. pl.* promises, i. e. what they profess to prove, *pr.* 16. A.S. *behēs*, a promise.
- By-twixe, *prep.* between, ii. 28. 11, 14.
- Caas, *sb.* case; sette caas, suppose, ii. 42. 14.
- Calkuled, *pp.* calculated, *pr.* 52.
- Calle, *sb.* caul, a net used to confine women's hair, i. 19. 3. "Maydens were sylken *callis*, with the whiche they kepe in ordre theyr heare, made yelowre with lye;" Hormani *Vulgaria*, leaf 115.
- Canon, *sb.* a rule, explanation, *pr.* 63; Canoun, a canon, rule, table, ii. 32. 3.
- Capitalles, *adj. pl.* capital, ii. 3. 20; Capitalls, i. 16. 8.
- Centre, *sb.* the "centre" or small point at the very end of which is the position of a fixed star in the Rete of the Astrolabe, i. 21. 7.
- Cenyth, *sb.* (1) zenith, i. 18. 10; (2) a word denoting the point where a given azimuth-circle meets the horizon, i. 19. 7. See *Azymuthz*, and *Senyth*.
- Certain, *adj.* certain; a certain (*used without a sb.*), *pr.* 10; a certain holes, i. e. a certain number of holes, i. 13. 2. So also 'of unces a certain,' C. T. 16244; 'a certain of gold,' C. T. 16492.
- Chapitre, *sb.* chapter, ii. 9. 2.
- Clepen, *pr. pl.* name, mention, ii. 39. 23; *pp.* Cleped, named, i. 4. 4.
- Clokke, *sb.* clock, *pr.* 56.
- Clymat, *sb.* a belt or zone of the earth included between two given lines of latitude, ii. 39. 18; *Climat*, ii. 39. 19; *pl.* Clymatz, climates, i. e. zones of latitude, i. 3. 3; *Clymates*, sets of almicanteras calculated for various terrestrial latitudes, i. 14. 2.
- Combust, *adj.* quenched, viz. by being so near the sun as to be obscured by his superior light, ii. 4. 31.
- Compas, *sb.* broad circle, zone, i. 21. 23; a circle, ii. 38. 2.
- Compassed, *pp.* drawn with compasses, fashioned circularly, i. 18. 1.
- Compilatour, *sb.* compiler, *pr.* 42.
- Compowned, *pp.* compounded, i. e. composed, constructed, drawn, *pr.* 7; described, marked, i. 18. 8; Compownet, ii. 5. 2.
- Comunly, *adv.* commonly, ii. 19. 7.
- Conclusions, *sb. pl.* mathematical propositions, either problems or theorems, *pr.* 9.
- Conforted, *pp.* comforted, supported, strengthened, ii. 4. 29.
- Coniunccion, *sb.* conjunction, ii. 32. 1. It means a very close apparent approach of two celestial bodies.
- Consentrik, *adj.* having the same

- centre, i. 17. 3; Consentryk, i. 17. 34; Consentrik, tending to the same centre, i. 16. 5; at an unchanging altitude, ii. 3. 47.
- Contienen, *v.* to contain, *pr.* 53; *pr. s.* Contienith, i. 7. 7; *pr. pl.* Contienen, i. 9. 2.
- Cost, *sb.* quarter, direction, ii. 46. 5; Coste, ii. 46. 17; *pl.* Costes, coasts, directions, i. e. parts of the sky to be observed, i. 19. 6.
- Cowchyng, *sb.* laying down, letting the Astrolabe lie flat on the ground, ii. 29. 18.
- Crepusculus, *sb. pl.* twilights, durations of twilight, ii. 6. *rub.*; Crepusculis, ii. 9. 1.
- Croos-lyne, *sb.* cross-line, the line from right to left through the centre in Fig. 1; i. 12. 5.
- Curious, *adj.* ornate, *pr.* 31.
- Dawenyng, *sb.* dawning, dawn, ii. 23. 8.
- Dawyng, *sb.* dawning, ii. 23. 20.
- Declaracioun, *sb.* explanation, i. 3. 3, &c.
- Declinacioun, *sb.* the angular distance of a celestial object N. or S. of the equator, measured along an arc at right angles to it, i. 17. 4; *pl.* Declinacions, *pr.* 54.
- Declinen, *pr. pl.* possess declination, i. e. pass either to the north or south of the ecliptic, ii. 17. 28; *pr. s.* Declineth, possesses declination, ii. 19. 8.
- Denticle, *sb.* pointer, i. 23. 1. *See* Almury.
- Departen, *pr. pl.* separate, i. 21. 32; *imp. s.* Departe, divide, ii. 8. 2; *pr. s.* Departeth, divides, i. 17. 30; *pp.* Departid, divided, marked by lines, i. 21. 34; divided, ii. 4. 37.
- Depressioun, *sb.* the angular distance of the southern pole from the horizon, ii. 25. 6.
- Descencioun, *sb.* descension, ii. 4. 32; Discencioun, ii. 4. 33. The technical signification seems to be—the “house” or portion of the sky just above the western horizon, so that perhaps a planet in his descension is about to set. (?)
- Descriued, *pp.* described, marked, i. 17. 1.
- Desturbith, *pr. s.* disturbs, prevents, i. 2. 2.
- Determinat, *adj.* properly ascertained, i. 21. 4; properly placed upon the Astrolabe, ii. 18. *rub.*
- Dignite, *sb.* dignity, ii. 4. 29; *pl.* Dignetes, *pr.* 72. A term in astrology. Bailey defines *Dignities* as “the advantages which a planet has on account of being in a particular place in the zodiac, or in such a station with other planets, &c.”
- Directe, *adj.* direct, ii. 35. 11. A planet’s motion is direct when it moves in the same direction as the sun along the signs.
- Directe, in directe, in a line with, ii. 44. 9.
- Distantz, *adj. pl.* distant; enene distantz, equidistant, i. 17. 31.
- Doctrine, *sb.* instruction, *pr.* 43.
- Downere, *adv.* more downward, ii. 12. 14.
- Ebrew, *adj.* Hebrew, *pr.* 23.
- Ecliptik, *sb.* ecliptic, *pr.* 67. A great circle of the sphere, drawn along the middle of the zodiac, making an angle with the equator of about 23°. 28'; the apparent path of the sun, nearly.
- Eft-sones, *adv.* soon after, immediately, ii. 23. 11.
- Egge, *sb.* edge, ii. 46. 7.
- Elecciouns, *sb. pl.* elections, choice of fit times, ii. 4. 2. “Of viage is ther non *eleccioun*,” Chaucer; M. of L. Ta. 312.

- Eleuacioun, *sb.* the altitude above the horizon of the north pole, ii. 23. 15.
- Eleuat, *pp.* elevated, ii. 23. 17. *See* Eleuacioun.
- Elles, *adv.* otherwise, i. 19. 2.
- Elongacioun, *sb.* angular distance, ii. 25. 39.
- Embelif, *adj.* oblique, i. 20. 2; (as applied to angles), angles that are not right angles, ii. 26. 23. I cannot find the word elsewhere, nor can I guess to what language it belongs; it looks like an extraordinary corruption of the word *oblique*.
- Embelif, *adv.* obliquely, ii. 26. 6.
- Emysperies, *sb. pl.* hemispheres, i. 18. 6.
- Endlang, *adv.* along, lengthways, ii. 40. 22, 44.
- Endytyng, *sb.* inditing, style of composition, *pr.* 30.
- Engin, *sb.* ingenuity, skill, *pr.* 41. Lat. *ingenium*, whence F. *engin*.
- Enhausyng, *sb.* elevation, ii. 39. 16.
- Enhawsed, *pp.* exalted, elevated, lifted above (the horizon), ii. 26. 22. O.F. *enhaucier*, to elevate, *haut*, high.
- Ensample, *sb.* token; in ensample, to signify, i. 21. 25.
- Ensampulle, *sb.* example, ii. 45. 5.
- Entere, *imp. s.* enter, ii. 44. 7. To "enter with" is to keep in mind and search for, as a help to finding something else. "*Argument*, in astronomical tables, is the angle on which the tabulated quantity depends, and with which, therefore, in technical language, the table must be *entered*."—Eng. Cycl. Arts and Sciences, s. v. *Argument*. In l. 3. *entere hit* = set down in writing.
- Entres, *sb. pl.* entries, ii. 44. 26.
- Episicle, *sb.* epicycle, ii. 35. 18.
- A small circle, the centre of which moves along the circumference of a larger one.
- Equacion, *sb.* equal partition, ii. 37. 9; *pl.* Equaciouns, ii. 36. 2. The "equations of houses" means the method of dividing the sphere *equally* into "houses" for astrological purposes; Equacions, *pr.* 71; Equaciouns, calculations, i. 23. 3.
- Equales, *adj. pl.* of equal length; howris equales, hours each containing 60 minutes, ii. 8. 2; Equals, equal, i. 16. 9.
- Equinoxial, *adj.* equinoctial; said of the equinoctial circle or equator, the great circle of the sphere whose poles are the arctic and antaretic poles, i. 17. 12.
- Equinoxis, *sb. pl.* equinoxes, i. 17. 18.
- Est, *adj.* East, i. 5. 4.
- Eue, *sb.* evening, ii. 12. 22.
- Euene, *adv.* equally. *See* Distantz.
- Euerech, *pron.* every one, *pr.* 40.
- Euer-mo, evermore, ii. 3. 25.
- Evidently, *adv.* by observation, ii. 23. *rub.*
- Expanse, *adj.* expanse or separate, ii. 45. 11. *See* Anni expansi.
- Experience, *sb.* knowledge acquired by trial, ii. 1. 16.
- Extre, *sb.* axle-tree, i. 14. 1. A.S. *ear*, an axis, axle.
- Face, *sb.* a third part of a "sign," a portion of the zodiac 10 degrees long, ii. 4. 38.
- Failling, *pres. part.* failing, remote, ii. 4. 18.
- Farwel; go farwel, be dismissed, be let alone, ii. 23. 7.
- Felicite, *sb.* favourable position or aspect, ii. 4. 25.

Fer, *adj.* far, ii. 16. 1.  
 Ferforth, *adv.* far-forth, i. e. far,  
*pr.* 49.  
 Ferthe, fourth, ii. 35. 4.  
 Ferther-ouer, *conj.* moreover, ii.  
 26. 8.  
 Figures, *sb. pl.* figures, i. e. mark-  
 ings, *pr.* 45.  
 Fixe, *pp.* fixed, *pr.* 54.  
 Fond, 1 *p. s. pt.* found, ii. 1. 6.  
 For, *prep.* against, to prevent, ii.  
 38. 1; to have for excused, i. e. to  
 excuse, *pr.* 30.  
 Forþer, *adv.* further, ii. 43a. 4.  
 Forthward, *adv.* forwards, ii. 35.  
 5.  
 For-why, *conj.* because, ii. 46. 19.  
 Frere, *sb.* friar, *pr.* 58.  
 Fro, *prep.* from; fro vs-ward,  
 away from us, used to express that  
 the sun having reached the nearest  
 point to our zenith, begins to de-  
 scend from it, i. 17. 9. Cf. i. 17. 39.  
 Furth, *adv.* forward, ii. 46. 4;  
 Furþe, ii. 46. 16.  
 Geuen, *pp.* given, *pr.* 6.  
 God, *adj.* good, ii. 4. 28.  
 Gouvernance, *sb.* regulation, *pr.*  
 56; subjection, i. 21. 50.  
 Grek, *adj.* Greek, *pr.* 22; *pl.*  
 Grekes, *pr.* 20.  
 Gyrdele, *sb.* girdle, cincture,  
 central line or great circle, i. 17.  
 26; Girdel, i. 17. 29.  
 Haddy, *for* Hadde y, had I, ii. 1.  
 15.  
 Halidayes, *sb. pl.* holydays, i. 11. 1.  
 Halt, *pr. s.* holdeth, holds, i. 14.  
 2.  
 Han, *pr. pl.* have, possess, *pr.* 24.  
 Hastow, *for* hast thou, i. 5. 6.  
 Hath hymself, *pr. s.* bears a  
 ratio, is in proportion, ii. 41b. 5.

Hauy, *for* haue y, have I, ii. 40.  
 15.  
 Hedes, *sb. pl.* heads, or first points  
 of signs, i. 17. 12. See Heucd.  
 Heie, *adj.* high, i. 16. 7.  
 Heiest, *adj.* highest, ii. 13. 4.  
 Hem, *pron. pl.* them, i. 8. 7.  
 Hennes-forthward, *adv.* hence-  
 forth, i. 1. 3.  
 Hepe, *sb.* heap; hence, to hepe, in  
 a heap, all close together, i. 14. 4.  
 See the Preface, p. xxviii.  
 Her-mele, *sb.* the thickness of a  
 hair, a hair's breadth; lit. a hair-  
 part, ii. 38. 10. A.S. *mæl*, a por-  
 tion.  
 Heued, *sb.* head; the beginning  
 or first point of a zodiacal sign,  
 i. 17. 3; *pl.* Heuedes, i. 17. 16.  
 Heuenissh, *adj.* heavenly, i. 21.  
 35. Cf. Compl. of Mars, st. 5.  
 Heuy, *adj.* heavy, difficult, *pr.* 32.  
 Heyer, *adj.* higher, ii. 23. 26.  
 Heyhte, *sb.* height, altitude, i. 1.  
 2; ii. 3. 13; Heyte, ii. 41. 9;  
 Heyth, ii. 41. 13.  
 Hihten, *pr. pl.* are called, i. 18. 2.  
 Hir, *pron.* her (applied to a star),  
 ii. 3. 29.  
 Hir, *pron.* their, *pr.* 16; i. 21. 4.  
 His, *pron.* its, i. 2. 3.  
 Hise, *pron. pl.* his, i. 12. 3.  
 Hit, *pron.* it, i. 2. 2.  
 Hole, *adj.* whole, ii. 9. 3.  
 Horoscepo; in *horoscopo*, within  
 that part of the sky considered as  
 the ascendent, ii. 4. 8; see note on  
 p. 18. Gk. *ὠροσκόπος*, observing  
 hours; also, as *sb.*, a nativity, a  
 horoscope; from *ὥρα*, time, an  
 hour, *σκέπτομαι*, to consider.  
 Horoscopum, *sb.* horoscope, ii. 4.  
 36. See above.  
 Hors, *sb.* the "horse," a name  
 for the little wedge that passes

- through a hole in the end of the "pyn," i. 14. 4. Called in Arabic *alpheraz*, the horse.
- Howis, *sb.* house, ii. 36. 5; Howys, ii. 36. 7; *pl.* Howses, *pr.* 71. The whole celestial sphere was divided into twelve equal portions, called *houses*, by six great circles passing through the north and south points of the horizon; two of these circles being the meridian and the horizon.
- Ilike, *adj.* equal, i. 17. 31; Illike, like, equal, i. 17. 17. A.S. *gelic*, G. *gleich*.
- Illik, *adv.* equally, ii. 15. 1; the same, ii. 39. 13.
- Illike-distant, at an even distance, i. e. parallel, ii. 39. 18. (*Not* equidistant, because the climates varied in breadth.)
- In, *prep.* into, i. 16. 2; among, i. 10. 5.
- Indeterminat, *adj.* not marked upon the Astrolabe, ii. 17. *rub.*
- Inequal, *adj.* ii. 10. 4; *pl.* Inequales, of unequal length; howris inequales, hours formed by dividing the duration of daylight by twelve, ii. 8. 1; Inequalis, ii. 10. 1.
- Infortunat, *adj.* unlucky, ii. 4. 34.
- Infortunyng, *sb.* unlucky condition, ii. 4. 26.
- Inperfit, *adj.* imperfect, incomplete, i. 18. 3.
- Intercept, *pp.* intercepted, ii. 39. 24.
- Introductory, *sb.* introduction, *pr.* 68.
- Ioigned, *pp.* joined, nearly or altogether in conjunction, ii. 4. 31.
- Ioyntly, *adv.* conjointly, together, ii. 11. 9.
- Iudicial, *adj.* judicial, ii. 4. 35. *Judicial astrology* pretended to forecast the destinies of men and nations; *natural astrology* foretold natural events, such as the weather and seasons.
- Iust, *adj.* just, exact, ii. 3. 43.
- Iustly, *adv.* exactly, ii. 3. 44.
- I-wreten, *pp.* written, ii. 45. 22; I-wrete, ii. 45. 23.
- I-wryton, *probably an error for* I wolde witen, I would know, ii. 45. 6. See the Critical Note.
- Kalcule, *v.* to calculate, i. 22. 3.
- Kalender, *sb.* a calendar, i. 11. 1; *pl.* Kalendres, *pr.* 57. Lat. *calendarium*. The old calendars answered nearly to our modern almanacks.
- Kalkuler, *sb.* the calculator or pointer, i. 23. 2. See Almury.
- Kanstow, 2 *p. s. pr.* knowest thou, *pr.* 20.
- Kas, *sb.* case; in kas þat, in case, ii. 3. 2.
- Kawht, *pp.* caught, perceived, ii. 17. 8.
- Kep, *sb.* heed; tak kep, take heed, i. 1. 2.
- Keruyng, carving, i. e. cutting, crossing over, i. 19. 3.
- Knowyng, *sb.* knowledge, *pr.* 47.
- Kon, *imp. s.* grant; kon me thank, grant me thanks, thank me, *pr.* 38. "To *con* one thanks, Fr. *savoir gré*, to feel thankful and make the feeling known to the object of it."—Wedgwood. A.S. *cunnan*, to know.
- Koweh, *v.* to lie; koweh adown, lie down, ii. 29. 14.
- Krokede, *adj.* crooked, i. 19. 2.
- Label, *sb.* the narrow revolving rod or rule on the front of the Astrolabe, i. 22. 1. See Fig. 6.
- Lasse, *adj.* less, *pr.* 40.
- Lat, *imp. s.* let, ii. 29. 13.



- Latitude, *sb.* breadth (*without any astronomical sense*), i. 21. 26; the breadth of a "climate;" or rather, a line along which this breadth is measured, ii. 39. 19. *See below.*
- Latitude, *sb.* (1) *astronomical*; the angular distance of any body from the ecliptic, measured along a great circle at right angles to the ecliptic, *pr.* 66; (2) *terrestrial*, the distance of any place on the globe, N. or S. of the equator, ii. 39. 23; (3) the breadth of a "climate," ii. 39. 19.
- Leden, *pr. pl.* lead, conduct, *pr.* 28.
- Lengere, *adj. pl.* longer, ii. 10. 2.
- Lengthing, *pres. part.* extending, ii. 25. 39.
- Leoun, *sb.* Leo (the sign), ii. 25. 27. From Lat. acc. *leonem*.
- Lest, *impers. pr. s.* it pleases, ii. 25. 38. *See List.*
- Leste, *adj.* least, i. 17. 2.
- Leuyth, *pr. s.* remains, ii. 25. 14; Leueth, ii. 25. 16.
- Lewd, *adj.* unlearned, *pr.* 42.
- Lewyth, *pr. s.* remains, ii. 44. 28. *See Leuyth.*
- Ligge, *pr. s. subj.* may lie, ii. 41. 3.
- Lilite, *adj. pl.* light, i. c. easy, *pr.* 19; *dat. sing.* Lihte, *pr.* 35.
- Liked, *pt. s. impers.* it pleased, i. 10. 6.
- List, *pr. s. impers.* it pleases (thee), ii. 3. 1. *See Lest.*
- Lite, *adj. as sb.* a little, ii. 1. 15. A.S. *lyt*.
- Lite, *adj.* little, *pr.* 20.
- Lite, *adv.* a little, ii. 12. 8.
- Longitude, *sb.* the distance between two given meridians, ii. 39. 12; the length or extent of a "climate," in a direction parallel to the equator, or rather (as it would appear), a line along which to measure this length; ii. 39. 18.
- Longitudes, *sb. pl.* longitudes, *pr.* 53, 55. The longitude of a star is measured along the ecliptic; that of a town, from a fixed meridian.
- Loppe, *sb.* a spider, i. 3. 4; 19. 2. A.S. *lobbe*, a spider.
- Lop-webbe, *sb.* cobweb, i. 21. 2. *See Loppe.*
- Lyhtly, *adv.* easily, ii. 14. 8.
- Lyne, *sb.* a line, cord, ii. 23. 25.
- Lyne-riht, *adj.* in an exact line, exactly in a line with, i. 21. 18.
- Maistow, *pr. s.* mayest thou, i. 21. 46.
- Maner, *sb.* kind; *used without* of following, *as* maner turet, kind of "turet," i. 2. 1; maner strikes, sort of strokes, i. 19. 1.
- Matiere, *sb.* matter, subject, ii. 4. 35.
- Mechel, *adv.* much; for as mechel, for as much, *pr.* 4.
- Mediacion, *sb.* means, assistance, *pr.* 8; Mediacioun, use, i. 13. 3.
- Membres, *sb. pl.* parts, *pr.* 46.
- Mene, *adj.* mean, ii. 44. 13. *See Mote.*
- Meridian, *adj.* meridional, at the moment of southing, exact southern, *pr.* 56; southern, on the meridian, ii. 39. 6.
- Meridional, *adj.* southern, i. 4. 4.
- Mete, 1 *p. s. pr.* measure, ii. 41. 5.
- Michel, *adv.* much, ii. 23. 17.
- Mile-wey, *sb.* a space of 5 degrees, which answers to 20 minutes of time, the average time for walking a mile; hence the term, i. 7. 7; *pl.* Mile-wey, i. 16. 10.
- Minutes, *sb. pl.* (1) minutes of time, i. 7. 8; (2) Minute, i. e. a sixtieth part of a degree, i. 8. 8; see i. 8. 10.
- Mo, *adj.* more, *pr.* 26.



- Moder, *sb.* lit. mother; the thickest plate forming the body or principal part of the Astrolabe; called in Latin *mater* or *rotula*, i. 3. 1.
- Modur, *sb.* mother, *pr.* 73.
- Mooble, *adj.* movable, i. 21. 47.
- Moeyung, *sb.* moving; *pr.* 61; Moeyunge, *pr.* 59; firste Moeyung, the "*primum mobile*," i. 17. 26.
- Mone, *sb.* moon, *pr.* 61. A.S. *mōna*.
- Moneth, *sb.* month, ii. 44. 34; Monith, i. 10. 12; *pl.* Monythis, ii. 44. 33.
- More, *adj.* greater, *pr.* 40; ii. 26. 7.
- Morwe, *sb.* morning, ii. 12. 25.
- Mote, *sb.* motion (Lat. *motus*), ii. 44. 13. The "mene mote" or *mean motion* is the motion of a planet during a given period as stated in the tables.
- Nadir, *sb.* the point of the ecliptic exactly opposite to that in which the sun is situate, ii. 6. 1; see i. 8. Arabic *nadhīrū's-samt*, i. e. opposite to the zenith, for which the term *an-nadhīr* simply, signifying "opposite," was commonly used.
- Naked, *adj.* simple, plain, *pr.* 19.
- Nam, *for* Ne am, am not, *pr.* 42.
- Narwe, *adv.* closely, lit. narrowly, *pr.* 49.
- Narwest, *superl. adj.* narrowest, smallest, i. 18. 4.
- Nat, *adv.* not, *pr.* 16.
- Natheles, *conj.* not the less, never the less, *pr.* 20. A.S. *ná*, not.
- Natiuitez, *sb. pl.* nativities, castings of nativity in astrology, ii. 4. 1.
- Nawht, *adv.* not, *pr.* 36.
- Neer, *adv.* nearer, ii. 43a. 4; 42b 3; Ner, ii. 42. 3.
- Nether, *adj.* lower, i. 12. 6.
- Netherest, *adj. superl.* lowest, i. e. outermost, i. 18. 4; Nethereste, lowest, i. 4. 2.
- Neuer-mo, *adv.* never oftener, never (with two exceptions), ii. 31. 3.
- Ney, *adj.* nigh, ii. 3. 46.
- Nombre, *sb.* a number, *pr.* 9; amount, sum, ii. 24. 3; *pl.* Nombres, *pr.* 2.
- Notable, *adj.* noteworthy, *pr.* 57.
- Noteful, *adj.* useful, *pr.* 72. A.S. *notu*, use.
- Nowmbres, *sb. pl.* numbers, i. 7. 4. *See* Nombre.
- O, one, one single, ii. 19. 11.
- Obedient, *adj.* answering to, or subject to, ii. 28. 20. A technical term, applied to the eastern signs of the zodiac, as being respectively correspondent to the western ones.
- Obeieth, *pr. s.* obeys, ii. 28. 25. *See* Obedient.
- Occidentale, *adj.* Western, i. 5. 6. *From* Lat. *occidens*, setting.
- Of, *prep.* by, *pr.* 41; for, i. 12. 4; from, i. 17. 28.
- On, one, i. 10. 15; one o'clock, ii. 3. 50; in on, in one and the same condition, unchangeably, ii. 2. 8.
- Ones, *adv.* once, *pr.* 34.
- Onythyng, ii. 38. 12. *See* Anythyng.
- Or, *prep.* ere, before, ii. 23. 20.
- Orientale, *adj.* eastern, i. 5. 4. *From* Lat. *oriens*, rising.
- Orizon rectum, or right horizon, ii. 26. 20. This means the horizon of any place situate on the equator, which could be represented by a straight line upon a disc or "table" of the Astrolabe.
- Orizonte, *sb.* horizon, *pr.* 7. Lat. acc. *horizontem*; Gk. *ὁρίζων*, bounding.
- Ouerkerueth, *pr. s.* cuts across,

- crosses, i. 21. 53; Ouerkeruyth, ii. 26. 20.
- Ouer-thwart, *prep.* exactly across, at right angles to, i. 5. 1. A.S. *ƿeorh*, across, diagonal. Cf. *Knights Ta.* 1133.
- Oxenford, *sb.* Oxford, *pr.* 8, 71.
- Paiens, *sb. pl.* pagans, ii. 4. 35.
- Parcelle, *sb.* parcel, i. e. part, i. 21. 49.
- Partie, *sb.* part, *pr.* 45; *pl.* Parties, *pr.* 18.
- Passeþ, *pr. s.* exceeds, ii. 42. 15; 42a. 7.
- Perced, *pp.* pierced, i. 3. 2.
- Perche, *sb.* a rod placed high up in a horizontal position, ii. 23. 26. Lat. *pertica*.
- Perfit, *adj.* perfect, complete, i. 18. 2.
- Perfitly, *adv.* perfectly, *pr.* 13.
- Performe, *v.* to shew, constitute, be equivalent to, ii. 10. 10.
- Peyre, *sb.* a "pair," a set, ii. 40. 18. A *pair* by no means implies that the set of similar things to which it is applied is limited to two. Cf. *Prol. to Cant. Tales*, 159.
- Plages, *sb. pl.* quarters of the compass, i. 5. 7; ii. 31. 10. Lat. *plaga*, a region, space.
- Planetes, *sb. pl.* planets, *pr.* 72. The seven planets, in order, are the Moon, Mercury, Venus, the Sun, Mars, Jupiter, and Saturn.
- Plate, *sb.* the "sight" on the "rewle," i. 13. 2.
- Pleie, *v.* to play; *hence*, to use, apply, ii. 40. 57. A.S. *plegan*, to play, apply.
- Plomet; *sb.* plummet, heavy weight, ii. 23. 25.
- Plom-rewle, *sb.* plummet-rule, ii. 38. 6.
- Pol, *sb.* pole, i. 14. 6, Pool, i. 18. 12.
- Portatif, *adj.* portable, *pr.* 50.
- Practik, *sb.* practice, practical working, *pr.* 49.
- Precedent, *adj.* preceding, ii. 32. 3.
- Prene, *sb.* test, verification, experimental proof, ii. 23. *rub.*
- Prikke, *sb.* a small mark, such as a little stick stuck in the ground, ii. 42. 3; a dot, ii. 5. 12.
- Principals, *adj. pl.* principal, chief, i. 4. 7; *Principals*, cardinal, ii. 31. 10.
- Proporcious, *sb. pl.* proportions, ratios, *pr.* 3.
- Propre, *sb.* own, ii. 7. 14.
- Propretes, *sb. pl.* properties, i. 10. 5.
- Proue, *v.* to test, ii. 23. *rub.* Lat. *probare*, to test, verify.
- Puttyng to, i. e. adding, ii. 43a. 12.
- Pyn, *sb.* the pin which passes through the central hole in the Astrolabe and its plates, i. 14. 1.
- Quantite, *sb.* largeness, size, i. 21. 24.
- Rather, *adv.* sooner, i. 21. 14. A.S. *hræð*, quick.
- Reherse, *v.* to rehearse, enumerate, *pr.* 45.
- Remenant, *sb.* remnant, rest, i. 4. 5.
- Remeue, *imp. s.* move backwards and forwards, ii. 2. 2.
- Rennyth, *pr. s.* runs, continues, ii. 3. 47.
- Resceiued, *pp.* received; wel resceiued, favourably situated with respect to other planets, &c.; ii. 4. 30.
- Respecte, *sb.* regard, i. 21. 49.
- Resseyunyth, *pr. s.* receives, i. 3. 2.
- Retrograd, *adj.* moving in a

- direction contrary to that of the sun's motion in the ecliptic, ii. 4. 31; 35. 12. Spoken with reference to a planet's *apparent* motion.
- Reuerent, *adj.* reverend, *pr.* 58.
- Revolucioun, *sb.* complete circuit, ii. 7. 13.
- Rewde, *adj.* rude, plain, unadorned, *pr.* 30.
- Rewle, *sb.* the revolving long and narrow plate or rod used for measuring and taking altitudes, i. 13. 1. See Fig. 3. It revolves at the *back* of the Astrolabe.
- Rewles, *sb. pl.* rules, *pr.* 19.
- Riet, *sb.* the "rete" or net; the topmost plate on which some of the stars were figured, and the northern half of the zodiac shewn, i. 3. 3.
- Rikened, 1 *p. s. pt.* reckoned, counted, ii. 3. 35.
- Rond, *adj.* round, circular, ii. 38. 1; ronde, ii. 38. 2.
- Rote, *sb.* root, the tabulated quantity belonging to a given fixed date, from which corresponding quantities for other dates can be calculated by addition or subtraction, ii. 44. 1; *pl.* Rotes, ii. 44. 20.
- Rowm, *adj.* roomy, large, wide, i. 2. 2. A.S. *rúm*, spacious.
- Rytes, *sb. pl.* observances, ii. 4. 35.
- Sadly, *adv.* carefully, steadily, with as little movement as possible, ii. 29. 12. W. *sad*, firm, steady.
- Samples, *sb. pl.* examples, ii. 40. 4.
- Sein, *gerund*; that is to sein, that is to say, *pr.* 25. See Seyen.
- Semeth, *impers. vb.* it seems; me semeth, it seems to me, *pr.* 33.
- Sen, *v.* to see, ii. 23. 27.
- Senyth, *sb.* (1) the point of the horizon where a given azimuthal circle meets it; hence, the point of sunrise, ii. 31. 8; (2) the zenith, or visible pole of the horizon, i. 18. 4. Arabic *al-samt*, a point of the horizon (shewing the *first* meaning to be the original one); whence Arabic *samt al-ras*, the zenith. See Azymuthz.
- Septentrional, *adj.* northern, ii. 40. 30; *pl.* Septentrionalis, ii. 40. 28.
- Sexe, six, ii. 42. 7.
- Seyen, *gerund*; pat is to seyen, that is to say, i. 10. 2. See Sein.
- Shaltow, *for* shalt thou, *pr.* 70; i. 7. 2.
- Shewith, *pr. s.* appears (*used for the modern is shewn*), i. 7. 5; ii. 25. 4; 30. 6; 32. 3; Shewyth, ii. 26. 15.
- Shipmen, *sb. pl.* sailors, ii. 31. 6.
- Shrewe, *sb.* evil planet, planet of evil influence, ii. 4. 31.
- Sin, *conj.* since, ii. 4. 3.
- Sit, *pr. s.* (*for* Sitteth), is situate, ii. 7. 4; 37. 3. See Sitte.
- Site, *sb.* position, situation, ii. 17. 24. Lat. *situs*.
- Sithes, *sb. pl.* times, ii. 42. 6; Sykes, ii. 42. 7. A.S. *sif*, a path, a journey, a time.
- Sitte, *pr. pl.* are placed, are set, i. 21. 6; *pres. part.* Sittinge, situate, i. 21. 8. See Sit.
- Skale, *sb.* scale, or rather, double scale, for measuring both by *umbra recta* and *umbra versa*, i. 12. 2.
- Slate, *sb.* a slate for writing upon, ii. 44. 3.
- Slely, *adv.* slily, i. e. with great sleight or skill, skilfully, ii. 29. 13; Sleyly, ii. 29. 14.
- Slen, *v.* to slay, *pr.* 44.
- So pat, *conj.* provided that, ii. 29. 17.
- Solsticioun, *sb.* the solstice, or point of the ecliptic most remote from the equator, i. 17. 5, 37. Lat. *solstitium*.

- Sonne, *sb.* sun, *pr.* 55; used as a *feminine* noun, ii. 1. *rub.* A.S. *sunne*, G. *sonne*, Du. *zon*, Sw. *sol*, are all *feminine* nouns.
- Sothly, *adv.* verily, soothly, *pr.* 15. A.S. *sōðlice*, verily; from *sōð*, sooth, truth.
- Souereyn, *adj.* superior, ii. 28. 23. A technical term, applied to the western signs of the zodiac, as superior to the "obedient" eastern ones. See Obedient.
- Sownyth, *pr.* *pl.* sounds as, i. e. means, i. 21. 37.
- So3th, 1 *p. s. pt.* sought, ii. 45. 10.
- Sper, *sb.* sphere, globe, i. 17. 15; Spere, sphere, i. 17. 28.
- Spryng, *sb.* first beginning, dawn, ii. 6. 4.
- Squyres, *sb. pl.* measuring-rules, i. 12. 2. Shakespeare and Spenser have *squire*; from O.F. *esquierre*, F. *équerre*, a square, measuring-rule, from Lat. *quadratus*.
- Stande, *pr. s. subj.* may stand, happen to be, ii. 34. 2; *pr. s.* Stant, stands, is situate, ii. 29. 5.
- Statutz, *sb. pl.* statutes, rules, *pr.* 68.
- Stike, *imp. s.* stick, fasten by insertion, ii. 38. 5.
- Stok, *sb.* a stump or block of wood, ii. 38. 4.
- Stont, *pr. s.* stands, ii. 42a. 3. See Stant.
- Strange, *adj.* not its own, ii. 19. 4. Every star has its *own* degrees in the equator and ecliptic, viz. the degrees in which a great circle passing through the star and through the N. and S. poles cuts these circles respectively.
- Straunge, *adj.* not well-known, ii. 17. *rub.* A *strange* star is one that is not represented upon the Rete of the Astrolabe.
- Streitnes, *sb.* narrowness, smallness, i. 21. 33.
- Stremes, *sb. pl.* rays of the sun, i. 13. 3.
- Streyneth, *pr. s.* holds together, compresses, i. 14. 4.
- Strikes, *sb. pl.* strokes, lines, i. 19. 2; Strykes, long marks, i. 7. 6. G. *strich*.
- Succedent, *sb.* a "succeedent" house, ii. 4. 29. The *succedent* houses are the *second*, *fifth*, *eighth*, and *eleventh*, as these are *about to follow* the most important houses, which are the *first* (just ascending), the *fourth* (just coming to the nadir), the *seventh* (just descending), and the *tenth*, just coming to the meridian.
- Succedith, *pr. s.* succeeds, follows, ii. 12. 27.
- Suffisantly, *adv.* sufficiently, *pr.* 26.
- Suffisaunt, *adj.* sufficient, sufficiently good, *pr.* 7.
- Suffise, 3 *p. pl. imp.* (let them) suffice, *pr.* 20.
- Superfice, *sb.* superficies, surface, i. 21. 25; in the superfice of, closely bordering upon, in the immediate neighbourhood of, i. 21. 19.
- Superfluite, *sb.* superfluity, superabundance, *pr.* 30.
- Swich, *adj.* such, *pr.* 32.
- Table, *sb.* one of the thin plates on which almicantaras are engraved, ii. 21. 4; *pl.* Tables, plates, i. 14. 2; tablets, ii. 40. 18. "*Tables* [in the last sense] be made of yuery, boxe, cyprus, & other stouffe, daubed with waxe to wrytte on;" Horman's Vulgaria, leaf 81.
- Tak, *imp. s.* know, accept as a result, ii. 25. 34.
- Take, *pp.* taken, ii. 3. 43; Taken, ii. 3. 41.
- Tarienge, *sb.* delay, ii. 25. 20.
- Tau3th, 1 *p. s. pt.* taught, ii. 44. 24; Thau3th, ii. 44. 32.

- Teehyng, *pres. part.* teaching, shewing, pointing out, ii. 12. 14. A.S. *tēcan*, to shew, Gk. *δεικνυαι*.
- Thank, *sb. sing.* thanks, *pr.* 38. A.S. *þanc*, an acknowledgment of a favour.
- Theorik, *sb.* theory, theoretical explanation, *pr.* 59.
- Ther, *adv.* where, wherewith, ii. 29. 9.
- Thikke-sterred, *adj.* thickly covered with stars, ii. 23. 1.
- Thilke, *pron. pl.* those, i. 7. 5.
- Thise, *pron. pl.* these, *pr.* 21.
- Tho, *adv.* then, ii. 1. 8.
- Tho, *pl.* those, i. 8. 4.
- Thowmbe, *sb.* thumb, i. 1. 1.
- Thridde, third, ii. 35. 3.
- Tid, *sb.* time, hour, ii. 3. 10; Tyd, ii. 3. 12.
- To, *adv.* too, ii. 25. 19; Too, besides, ii. 45. 14.
- Too, *num.* two, ii. 42. 16.
- Tornen, *v.* to turn, i. 21. 3.
- Tortuos, *adj.* lit. tortuous, i. e. oblique, applied to the six signs of the zodiac (Capricorn to Gemini), which ascend most rapidly and obliquely, ii. 28. 19.
- To-pridd, two-third; to-pridd parties, two-third parts, two thirds, ii. 41b. 7; Too-pridd, *ib.*
- Towchieth, *pr. s.* touches, ii. 27. 3; Towchith, ii. 27. 6; Towcheth, ii. 28. 5.
- Towre, *sb.* tower, ii. 41. 2; Tour, ii. 41. 3.
- Tretis, *sb.* F. treatise, *pr.* 4; *pl.* Tretis, treatises, ii. 34. 9. A translation of Lat. *tractatus*.
- Tropik, *sb.* the turning-point, a name for the solstitial points, i. 17. 8, 38.
- Tropos, *sb.* a turning; but interpreted by Chaucer to mean "agayn-ward," i. e. backward, i. 17. 8. Gk. *ὑπότροπος*, a turn.
- Turet, *sb.* the eye in which the ring of the Astrolabe turned, i. 2. 1. Cotgrave has, "*Touret*, the little ring by which a Hawkes *lune* or *leash* is fastened unto the Jesses." See the note in Warton (Hist. E. P. ii. 315, ed. 1871), which seems to make the word equivalent to a *swivel*. Cotgrave gives "a drill" as another meaning, which clearly connects it with *tour*, a turn. It seems to mean both a ring which turns round, and an eye in which a ring can turn.
- Twies, *adv.* twice, *pr.* 34; Twye, i. 16. 12.
- Verray, *adj.* very, exact, true, *pr.* 61; Verre, exact, i. 12. 5.
- Verreyli, *adv.* truly, exactly, ii. 3. 41.
- Vmbra extensa, *or* recta, the lower part of the "skale;" Vmbra versa, the upper part of the same, or the part perpendicular to the "cross-line," i. 12. 6. See Fig. 1.
- Vnknowe, *pp.* unknown, *pr.* 13.
- Vnremevid, *pp.* unremoved, without (its) being moved, ii. 46. 21.
- Vnstraunge, *adj.* wellknown, familiarly known, ii. 17. *rub.* The *unstraunge* stars are those which are represented upon the Rete of the Astrolabe. See Determynat.
- Vouche, *v.* to vouch; vouche sauf, to avouch as safe, to vouchsafe, grant, *pr.* 72. Cf. *William of Palerne*, ed. Skeat, l. 4152.
- Vp, *prep.* upon, ii. 1. 2.
- Vppere, *adv.* more upward, ii. 12. 13.
- Vsurpe, 1 *p. s. pr.* usurp, claim, *pr.* 41.
- Vs-ward; fro vs-ward, away from us, i. 17. 9; to vsward, towards vs, i. 17. 39.



- Vulgar, *adj.* ii. 9. 3. The *day vulgar* is the length of the "artificial" day, with the durations of morning and evening twilight added to it.
- Waite, *imp. s.* watch, look, observe, ii. 5. 11.
- Waityng on, *pres. part.* observing, ii. 38. 11.
- Webbe, a cobweb, i. 3. 4.
- Wegge, *sb.* a wedge, i. 14. 3. A.S. *wegg*.
- Wenest, 2 *p. s. pr.* expectest, ii. 3. 44.
- Were, *pr. s. subj.* should be; *also*, would be, ii. 43. 7.
- Weten, *v.* to know, ii. 44. 30.
- Wex, *sb.* wax, ii. 40. 21.
- Wexede, 1 *p. s. pt.* waxed, coated with wax, ii. 40. 17. See Tables.
- Wey, *sb.* (1) the sun's apparent way or path during a given day, ii. 30. 3; see i. 10; *also* (2) the sun's apparent path or annual course, i. 21. 30.
- Weyere, *sb.* the "weigher," a translation of the Lat. *equator*, because it weighs equally the night and day, since the days and nights, at the equinoxes, are equal; i. 17. 16.
- Whaite, *imp. s.* watch, observe, ii. 25. 21. See Waite.
- What—þat, i. e. which, ii. 17. 14; 18. 2.
- Whereas, *adv.* where that, where, ii. 31. 13.
- Whir, *sb.* wire, thin metal rod, ii. 48. 5. A.S. *wír*. The word should be spelt *wir*; the MS. spelling *whir* is faulty.
- With-drawe, *imp. s.* subtract, ii. 44. 27; Wyth-drawe, ii. 45. 4; 1 *p. s. pt.* With-drowe, ii. 45. 7.
- Wol, 1 *p. s. pr.* (I) will, *pr.* 28. Wombe-side, *sb.* the front of the Astrolabe, i. 6. 6. See Fig. 2.
- Wot, 1 *p. s. pr.* know, ii. 3. 50; *pr. s.* knows, *pr.* 25, 50.
- Wreten, *pp.* written, ii. 44. 7.
- Wrowlhte, 1 *p. s. pt.* wrought, worked, ii. 3. 27; Wroȝth, was working, ii. 45. 13.
- Wyte, *v.* to know, ii. 3. 26.
- Yelepēd, *pp.* called, ii. 39. 3. See Clepen.
- Yif, *conj.* if, *pr.* 72.
- Yit, *adv.* as yet, hitherto, *pr.* 20.
- Ylike, *adv.* equally, ii. 26. 12.
- Ynke, *sb.* ink, ii. 5. 12.
- Zodia, *sb. pl.* beasts, i. 21. 36. Gk. pl. ζώδια, from ζῷδιον, dimin. of ζῷον, a creature.
- Zodiac, *sb.* zodiac, *pr.* 65. An imaginary belt in the heavens, of the breadth of 12°, along the middle of which runs the ecliptic. The Astrolabe only shewed the northern half of this belt; see note on p. 13. Named from the imaginary creatures formed by the constellations situate in it; from Gk. ζῷδιον, dimin. of ζῷον, a living creature. See a drawing in the English Cyclopædia, Arts and Sciences, viii. 1054, which shows the figures of the animals in the zodiacs represented on a ceiling in the great temple of Denderah in Egypt, sculptured about 716 B.C. There is a beautiful copy of this sculpture, in white marble, in the Fitzwilliam Museum at Cambridge. The twelve "beasts" there shewn are all identical with those which appear in a modern almanac.
- Ȝere, *sb.* year, ii. 44. 2; *pl.* Ȝeris, ii. 42. 6.
- Ȝif, *conj.* if, *pr.* 35.



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